

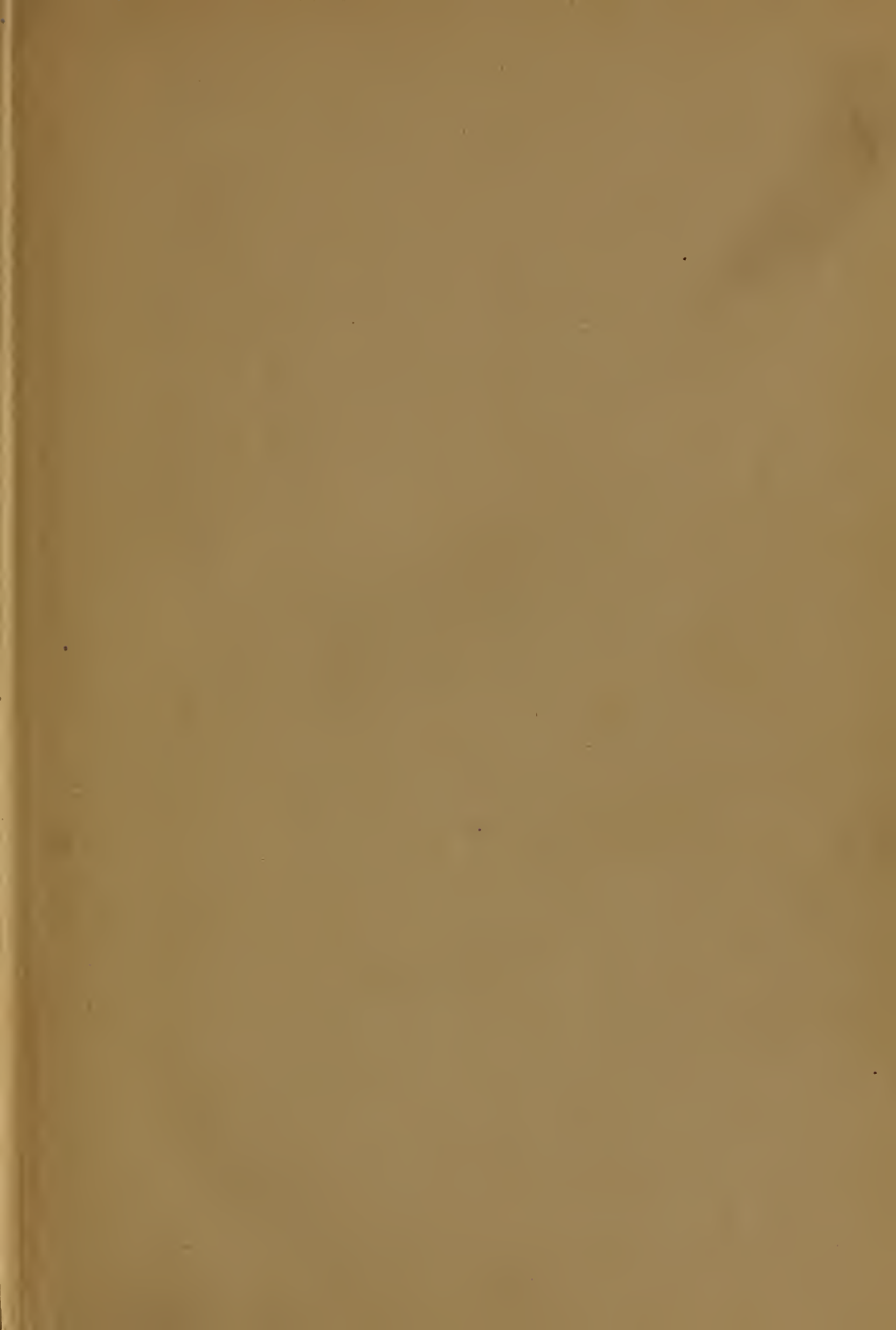


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THE DON QUIXOTE OF PSYCHIATRY

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THE DON QUIXOTE OF PSYCHIATRY

A chapter in the history of American medicine, containing information not elsewhere available. Published, 1919.

In Preparation

HISTORY OF GONORRHEA

From the earliest time to the present, based largely upon the original sources.

THE DON QUIXOTE OF PSYCHIATRY

By

Victor Robinson

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TO A. LEVINSON,
CHICAGO

Dear Doctor:

In the year that Dr Clevenger was appointed to the staff of the Michael Reese Hospital, you and I were born. The snows and saffrons of more than thirty years have passed since then, and Dr Clevenger no longer walks among the wards of the Michael Reese—but you do. I have often told you fragments of the tale of your predecessor; take now the finished story from

Your friend,

THE AUTHOR.

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THE DON QUIXOTE OF PSYCHIATRY

THE DON QUIXOTE OF PSYCHIATRY

I

THE FORMATIVE YEARS

HAVE you ever heard of Dunning? That's the town, seven miles from Chicago's center, where the Insane Asylum of Cook County is located. Had you lived there in 1880, when Dunning was only a patch of prairie, with nothing but the asylum and some saloons to indicate that civilization had reached the spot, you would often have noticed a person walking along the road, holding in his hand a tightly-closed tin-bucket on which the sun glittered. He seemed to be a friendly sort of man, and acquaintances who passed him, called out, 'Hello, Doc.' As he was not far from forty years of age, you might have supposed that he had been practising for some time, but your name is not SHERLOCK HOLMES, for S. V. CLEVENGER was an M.D. of only one year's standing.

There had been too many cross-roads in his journey to enable him to reach his destination sooner. His adventures began with his birth, for altho springing from strictly American stock—in 1690 JOHN CLEVINGER signed a petition to the king ‘for better government of East Jersey,’ and during the Revolution Captain JOB CLEVINGER of the Burlington Militia was killed by the British at Crosswicks, while his mother’s family was related to bold JOHN HANCOCK—yet he himself drew the first breath of life beneath the bluer skies of Florence.

His father had worked in Cincinnati as a stone-cutter—until the day that he chiseled a man’s head in a rock and all the city recognized the editor of the *Cincinnati Evening-Post*. The stone-cutter had grown into a sculptor, and the workingman’s quarry-yard became an artist’s studio. He traveled to other cities, to see who would trade gold for marble. Memorable men sought this gifted boy: two presidents of the United States, WILLIAM HENRY HARRISON and MARTIN VAN BUREN, and the best-known statesmen of the day, DANIEL WEBSTER, HENRY CLAY and EDWARD EVERETT, were among his sitters. Old Judge HOPKINSON who signed the Declaration of Independence, young JULIA WARD the

poetess, WASHINGTON ALLSTON the painter, and JOHN EBERLE the physician who helped to found the Jefferson Medical College, were featured for futurity by his chisel.

There came into his life the call of Italy, and with his family he sailed for the artist's Holy Land—and by the Arno, on the twenty-fourth of March, 1843, SHOBAL VAIL CLEVINGER, JR, came into the world. The sculptor toiled hard and learnt much, and when the time came for him to exhibit his handiwork, it was found he had not carved a worn-out Roman theme, but the first distinctive American figure done abroad—the Indian. But what has become of this Indian no man knows; he seems to have disappeared like the living members of his race.

Only thirty years of age, his genius recognized, his fame increasing, full of plans, mapping out his work, the future beckoned brightly to the sculptor. But that same enemy which wrote *Finis* to the poems of KEATS, and hushed the music of CHOPIN, was already shaking the plaster from CLEVINGER's hand. Tuberculosis marked him, and the stricken youth prepared to return to America—to die at home. Whatever we are, wherever we are, when the final summons comes, we want to die at home.

A ship passed Gibraltar with furled sails, for a passenger had died on the boat, and lay draped in the American flag. The captain read the burial service, and when he reached the words, 'We consign his body to the deep,' a board was lifted, and the corpse of CLEVENGER slid into the waters of the Atlantic. He had a grave to which his widow could bring no flowers. Only Junior did not weep, for he was six months old, and did not understand that he had lost a brilliant father.

When the widow arrived in New York, JOHN JACOB ASTOR, the founder of Astoria, advised her in disposing of the statuery that had caused the vessel to dip below Plimsoll's mark. HENRY CLAY also called in reference to the bust that he had ordered, and when the tall orator bent over to shake hands with SHO BAL's little sister, she mistook him for a giant stepping out of one of her fairy-tales. SHO BAL himself stared at the man who claimed he would rather be right than president, but only said 'Boo,'—perhaps he didn't believe him, even then. Years later, the government used CLEVENGER's Webster for its fifteen-cent postage-stamp, and today his marbles are found in the Boston Athenæum, in the Academy of Fine Arts at Philadelphia, and at

the Metropolitan Museum of Art in New York City. The builder was frail, and his body fed the fishes, but his work shall not perish.

The CLEVENGERS had relatives along the Mississippi, and there they went. Matters were talked over, and it was decided that Mrs CLEVENGER should open a fashionable hotel—a high-class boarding house it really was. To remain a widow when you are young, and have three children and an hotel on your hands, is not always convenient, especially if the handsome star-boarder is importunate, and before long Mrs CLEVENGER became Mrs THWING, and the three children—thru no merit of their own—acquired a step-father, while the hotel gained a new manager.

The second husband showed marked ability in spending the first husband's money, but otherwise he was not talented. He was a Southern gentleman, and in those days Southern gentlemen did not work. Altogether, Mr THWING failed to play an important rôle in the lives of the family, for not many years later he too was silenced by the Captain of the Men of Death, as JOHN BUNYAN quaintly called tuberculosis.

So SHOBAL grew up in the West. It was not the West that DANIEL BOONE and DAVY CROCK-

ETT knew, for a changing land was growing out of the broadened trails, already treading on the trader's and the trapper's heel; yet it was far from the decorous West of the present, where Pullman berths are more plentiful than wigwams; it was the West raw from the broad-ax, the strange territory where the express receipts of Wells & Fargo read: 'This company will not be responsible for the acts of God, Indians, or other public enemies of the government.'

The boy never met God out west, but he saw the redskins, naked and hostile in the wild woods; he looked upon the corpses of men swinging from lodge-poles, the words Vigilance Committee pinned upon their last suit of clothes; he felt the earth tremble beneath a herd of buffaloes that stretched for miles; he lived next door to people who had played their parts in the great Western drama: first a forest, then a pioneer, then a clearing, then a log-cabin, then a massacre, and when the hills no longer re-echoed the war-whoop, nothing—until the next settler's family stepped out of the prairie-schooner.

SHOBAL CLEVINGER's earliest recollections date from an Indian trading-village which has since become St Louis. Small as it was, it surpassed all its neighbors, and even boasted of

traveling salesmen. One of these drummers had occasion to visit a town that was springing up along Lake Michigan, with the result that when he got back, he amused his friends by telling them, 'That dirty little mud-hole of Chicago expects to equal our city some day.' Here we have evidence that even a traveling salesman's judgment may be at fault.

SHOBAL next found himself on a farm in Ohio, where his big brother ALBERT took him rabbit-hunting, and allowed him to watch as he chopped down the trees, to the whistled tune of a popular song.

They went to Alabama for a short time, soon coming to New Orleans. Here SHOBAL was sent to school, and found that the principal part of the curriculum consisted in chastisement. Yet mischievous as he was, his own hide never felt the rattan, for when a good-natured grin on his face caused him to be called forward to receive a licking, he jumped out of the window and never returned.

To beat children was quite the thing in those days—it had SOLOMON's sanction. It is not on record that SOLOMON has revised his maxims, but it is evident that we have revised our opinion of SOLOMON. The constant whippings brutalized

the youngsters, and certainly aroused sadistic instincts in the teachers.

Yet the chief grief of SHOBAL's childhood was not due to a school-master—when punishment was imminent he graduated rapidly—but to his own mother. She had bought him his first pair of pants, and like a true youngster he had spoiled the precious garment by sitting on a wet lawn. 'That settles it,' she remarked as she changed him back to frocks, 'you will have to wear petticoats as long as you live.' He was an impressionable lad, and the picture of himself grown to tall manhood, with long legs imperfectly covered by short gowns, disturbed his sleep for several nights.

The family liked New Orleans, but in 1853 came the yellow fever. It proved to be an historic plague, and the stolid cry of strangers, 'Bring out your dead, bring out your dead,' became as common as when BENJAMIN RUSH waded thru the remains of stricken Philadelphia, stopping in amazement when he saw some one building a house for the living in the city of the dead. All the CLEVENGERS were attacked, ALBERT worst of all. The remarkable physician, JOSIAH CLARK NOTT,—who even in that day believed in the mosquito-theory of yellow-

fever, but died before any one else believed it—treated the sufferers, and left special orders in regard to ALBERT. Nurses have disobeyed physicians—with resulting benefit to the patients—but it was not thus in this case: as soon as Dr NOTT's back was turned, the nurse did just what he told her not to do, and in a few hours there was one CLEVENGER less in the world.

SHOBAL went back to St Louis, alone this time, as he was already twelve years old; first he worked as a clerk in his Uncle YATES' boat store, then another relative, JOHN J. ROE, the merchant prince of St Louis, put him in the States Savings Institution as a messenger, and he was soon promoted to a collectorship. It was the largest bank in the west, there were no clearing houses then, and some days he collected over a million dollars in gold and silver, but he evened up matters by seeing little money since. It was often necessary to take trips down the river, and he remembered at least one of the cub pilots, as he happened to be MARK TWAIN.

The California fever heated the young man's blood, but because of Indians on the war-path he was switched to Colorado and New Mexico. As indicative of the types that one was likely to meet in those days, let it be mentioned that at Pike's

Peak he came across PAT CASEY, a rich mine owner who could not sign his name, but who could pay \$300 for a night's use of the bridal chamber in a New York hotel, sleeping alone in the gorgeous bed with his boots on.

SHOBAL remained an inhabitant of St Louis until the lowering war-clouds broke into a red outpour. It became plain that HENRY CLAY's compromises had effected nothing; nor indeed was any concession possible with a people whose leading newspapers uttered sentiments such as these:

'Free Society!' cried the *Muscogee Herald* of Alabama, 'we sicken at the name. What is it but a conglomeration of greasy workmen, filthy operatives, and small-fisted farmers? All the Northern States are devoid of society fitted for a well-bred gentleman. The prevailing class is that of mechanics struggling to be genteel, and small farmers who do their own drudgery and are not fit for association with a gentleman's body-servant.'

'The establishment of the Confederacy,' explained the *Richmond Enquirer* of Tennessee, 'is a distinct reaction against the whole course of the mistaken civilization of the age. For liberty, equality, fraternity, we have deliberately substi-

tuted slave labor; for voluntary labor, the Confederacy has substituted involuntary labor; for paid labor, the Confederacy has substituted unpaid labor.'

'There are slave races born to labor,' proclaimed the *Richmond Examiner*, 'and master races born to govern and control the fruits of labor.'

One portion of the community was to drudge and be common, and the other portion was to reap the benefits and be gentlemen—such was the creed of these high-toned highwaymen. The arch-southron, proprietor of negroes and father of mulattoes,—a gentleman of such exquisite sensibilities that he was quite capable of selling his own children into slavery—needed a national disaster to convince him that he was out of place in the nineteenth century.

When the call for volunteers came, SHO BAL CLEVENGER, a splendid youth of nineteen, enlisted as a private in a regiment being raised in Kansas City. During the course of the war he was in the armies commanded by GRANT, FREMONT, HOWARD, the lamented McPHERSON, and THOMAS.

At Nashville, Tennessee, he joined the United States Engineer Corps, and was occupied in

building bridges and railroads. Here he met Miss MARIANA KNAPP, a graduate of the Western Female College of Oxford, Ohio; after that, whenever he marched off with the troops, and the regimental musicians played, 'The Girl I Left Behind Me,' SHOBAL had something to think about. Altho we find no date attached, we opine that it was around this time that he wrote the *Invocation* containing the lines:

Help me, O muse, to sing her praise,
Mark with me all her gentle ways;
Her sylphid form, her deep blue eye
That purity of soul imply—
Her easy, unassuming grace,
Her modest, lovely, downcast face, etc.

Private CLEVENGER joined SHERMAN when that doughty General started on his journey to the sea, but he was turned back by the order of ANDREW JOHNSON, military governor of the state, who promoted him to a first lieutenantcy in the Tenth Tennessee Infantry, and placed him in charge of Sherman Barracks, with the additional privilege of raising a battalion of his own. So while SHERMAN was marching thru Georgia, CLEVENGER was inserting patriotic advertisements in the newspapers, under the title,

'To the Truly Loyal,' urging all able-bodied males to enlist under his new lieutenant's sword.

Most participants in the Civil War have talked about it for the remainder of their lives—the veteran winning battles with his tongue and cane has been a familiar figure in American life since the sixties—but CLEVENGER rarely alluded to his martial exploits, altho his career in the army was honorable and hazardous. He performed his duty and volunteered for more, as may be seen by the characteristic note which he sent to the commander of the post at Johnsonville:

I have the honor to request the privilege of taking 15 of my men out on a scout across the Tennessee. Having experience, and experienced men who know the country thoroly, I might be enabled to do much service by being permitted to scout tomorrow.

Hoping that my request will be granted, your acquiescence will find me at your headquarters tomorrow.

Special order 1721, directing Lieutenant CLEVENGER to report with twenty-five men at Picket Post to escort a quarter-master train twelve miles out, was signed by ANDREW JOHNSON—and it certainly looks like the chirography of a man who couldn't write until his wife taught

him. In the remarks on the muster-out roll that lies before us, it is stated that CLEVINGER served in four regiments and commanded one; that he was Captain by appointment, but was not mustered in; and that in December, 1864, for his services at the Battle of Nashville, he was appointed Brevet Lieutenant Colonel by ANDREW JOHNSON—presidential approval pending. When the time for ratification arrived, JOHNSON himself was the man in the White House, but he was so occupied with the terrible STANTON that he forgot the Battle of Nashville and neglected to approve his own appointment. So CLEVINGER remained only a lieutenant.

When the war was over, he became chief clerk in a claim agency, and helped to muster the boys in blue out of service, an occupation in which he earned considerable money. By this time Miss KNAPP was his wife, and together they started for Montana—accompanied by the books that had been used at the Western Female College; Mrs CLEVINGER didn't need them any more, but CLEVINGER did: he wanted an education too.

It took ninety days to reach Montana, but when they were settled, they became personages in the land: at White Tail Deer, CLEVINGER held the office of justice of the peace, and at Fort

Benton, Mrs CLEVENGER organized the first public school, while her husky mate was hotel keeper, probate judge, court commissioner, and revenue collector. Besides, he made meteorological observations for the Smithsonian Institution, with rain-gauges furnished by JOSEPH HENRY himself.

As a worker for Uncle Sam it was one of CLEVENGER's jobs to look after the illegal whisky that the white men were selling to the Indians—really mixtures of chemicals with tobacco juice, red pepper and fusel-oil in spirits of cologne—and he had the sport of emptying hundreds of such barrels into the Missouri river, tho sometimes the trader would not give up the rot-gut whisky until he found a file of soldiers in uncomfortable propinquity.

Nature is a harsh step-mother to the human race: if a man is syphilitic or has gallstones, his children are in danger of inheriting the disorder, but if he has any special talent, his offspring are not so liable to be infected with it. None of the sculptor's children showed any artistic inclination, but SHOBAL was gifted in another direction: he had a bent toward scientific things. In spite of his official functions, the long silent winter-evenings at the isolated fur-post gave him

leisure to cultivate himself. His wife was his teacher, until he went beyond her. He qualified as a civil engineer, and soon had a contract to survey the military reservation.

Thruout all his surveys he carried with him the identical copy of LOOMIS' *Trigonometry and Logarithms* which his wife had used in the Ohio school, but he carried it across that sandy waste of New Mexico known as the Journey of Death, for all along the route were the bones of men, oxen, deer, buffaloes, wolves, dogs, horses,—animals that perished from want of water. On these surveys he learnt what it was to wander in a blizzard without food for days, and finally to cook a steak from a government-mule that was found frozen on the ground. He learnt what it was to go without drink, when the tongue hangs out, swollen, blackened, fissured, and a cracker turns to dry powder in the mouth, and then, delirious with joy, dash and roll, with clothing on, into a creek of water. Hunger and thirst; clouds of mosquitoes and whirlwinds of sand; storms that tore his tents to shreds, and dust that blinded the eyes; mountains and prairies; Indians and politicians: these obstacles did not prevent him from surveying endless miles in what was then unexplored Dakota Territory,

now the states of North and South Dakota.

He did more for Dakota: he built its first telegraph, thus connecting isolated Yankton with the outside world. It meant much to the town, which now decided to consider itself the metropolis of the northwest. The mayor, the newspapers and the inhabitants turned out to welcome the builder, a telegraph-ball was given in honor of the thread-like wire which could carry Yankton's messages over the far-stretching prairies into the busy haunts of men, and just to prove that everything was all right, CLEVENGER played a game of chess by telegraph with an operator in Chicago.

But we must take things as they come on our planet, and a few months after this triumph, the CLEVENGERS lost their daughter BESSIE, a child of five, from scarlatina, and the world looked changed to them. But men must work, tho their children die, and as the Dakota Southern Railway was being erected, CLEVENGER secured the position of its chief engineer.

As his engineering skill increased, his ambitions expanded, and he formed the project of building monuments of masonry along boundary lines and doing such creditable astronomical and geographical work that engineers from afar

would come to study it. To accomplish this, he calculated, would take three years of labor and about thirty thousand dollars. To get such a contract it was necessary to visit headquarters. He had another reason for going—he was loaded with evidence against the Land and Indian Departments in the West, and if the government agents could be prevented from robbing the Indians of their annuities and swindling them to the starvation point, there would be no more outbreaks like the Minnesota Massacre. H. H.'s *A Century of Dishonor*—a white woman's indictment of white men—is America's bitter classic.

So the day came when the western youth, tanned with the sun and winds of Dakota, walked thru the streets of the national capital. It was fortunate for CLEVENGER that he came to Washington. He learnt many things: he learnt that no one wanted to hear anything in favor of monuments of masonry, and that no one wanted to hear anything against government agents.

Still he lingered, and at last the wheel of fortune seemed to take a more favorable turn. A few Washingtonians approached him, and promised to obtain the appropriation. CLEVENGER thanked them cordially. 'Provided,' they added,



CLEVINGER
During the Yankton Period

‘you give us a certain percentage, ahem.’ This was followed by the gentle hint that he didn’t have to do the work at all—it could easily be reported that Indians had destroyed it. Some one thought it time to take pity on his simplicity, and told him, ‘Go home, and I’ll give you a base line to measure, at which you can earn an engineer’s salary, tho it will take a year or two before you can have it. If you stay in Washington, your political friends who claim to be pledged to your ideas, will rob you of your papers, put you in the wrong and sell out to the senators who even now are secretly laughing at you.’

It was a sobered engineer who set his face westward again, determined to survey no more land for the government, resolved to follow a new calling—where politicians could not enter: Medicine.

II

AT THE CHICAGO MEDICAL COLLEGE

AT this juncture, General ALFRED J. MEYER, chief of the United States Weather Bureau, which was then in the signal service of the war department, requested CLEVINGER to take charge of the observatory at Fort Sully, Dakota, and he consented for the sake of a livelihood. His work consisted in telegraphing three times daily to Washington, the barometer and thermometer readings, minimum and maximum temperatures, nature and direction of clouds, humidity and wind force, translated into cipher.

But it was medicine that filled his dream, and under the direction of the army surgeons he read the Vienna masters, ROKITANSKY, SKODA, and HEBRA—but did not hear of SEMMELWEIS. He studied also anatomy and chemistry—preparing for college. He sent East for a copy of HOLDEN's *Anatomy*, and when it arrived, he and Dr BERGEN, the post surgeon, pored over it with delight—but they needed a skeleton to compare

with the beautiful plates. No doubt they felt like killing the post commander—a snob who wasted honest men's time by demanding that they perpetually salute him and dress punctiliously for parade. But deciding it would be safer to obtain a ready-made frame-work of the human body, they planned to rob an Indian place of sepulture—across a ravine, on a high bluff, some miles from the fort.

They prepared flour sacks, dark lanterns and revolvers—and waited for night; sliding down one hill and climbing another, they hurried along until they came to a Sioux village of teepees, where many dogs howled. Hiding until all was still, they crept on again, and reached the graveyard. The bodies were not buried, but were in boxes hanging on poles. They tumbled these down, and after filling the flour sacks with bones, the adventurers returned to the fort without incident.

Content but exhausted, CLEVENGER threw himself into bed with torn clothes and shoes bristling with prickly pear stickers, his body pierced all over with cactus spines. He slept. He awoke in full daylight to find the hospital steward bending over him with a grin that almost split his face. The steward was a little Yankee

who spoke in so squeaky a voice that if heard on the stage it would be considered a caricature. 'Were you and Dr BERGEN poking around the Indian burying ground last night?' he queried.

'Is that any of your damned business?' asked CLEVENGER.

'Not a bit,' he cried in delight, 'but you ought to listen to the racket down in the Indian village. The major sent down to find out what was eating them, and they said the spirits of their dead friends were dancing on the hill last night. The major did some guessing on his own account and sent for BERGEN who gave the secret away.'

'Well,' answered CLEVENGER, 'I guess we can survive the major knowing that we are studying anatomy at this post.'

'That's all right,' agreed the steward, 'but there is more to tell: that was a special grave-yard.'

'What sort?' asked CLEVENGER, yawning. 'Kings and queens, chiefs and chiefesses?'

'Worse than that: small-pox!'

Suddenly CLEVENGER became interested in his surroundings, and with a leap was at his keys telegraphing for vaccine lymph—which came in a month. The small-pox, however, did not come at all—the Indians must have been hanging a long time—but CLEVENGER was again bitten by

a political trick: Captain HOWGATE boodled so much of the signal service funds that the Fort Sully office was discontinued.

CLEVINGER now sought employment from the owner of a fleet of steamboats, JOHN H. CHARLES, the same who advanced the wire and expenses for his telegraph, and was one of the best friends he ever had. Under this good-hearted Commodore he worked as a steamboat clerk until he considered he had sufficient money to go to medical school.

He had set his heart on Harvard, and was frank enough to inform the Secretary of his circumstances: his family was increasing, his income was not. The Secretary was REGINALD HEBER FITZ, but in his reply of December, 1876, the investigator of the intrapleural lipomata of the mediastinum appears as a sensible economist. He explained to Mr CLEVINGER that even an unmarried student cannot live on less than \$7 a week, that the tuition fee was \$200 a year, that outside work could be obtained only with extreme difficulty, and that such work was hardly feasible, as the college demanded the student's entire time. Good-bye, Harvard!

The University of Michigan also was thought of, but he finally decided that the Chicago Med-

ical College, now Northwestern University, would be his alma mater. This was not the oldest medical school in Illinois. In the early thirties, when DANIEL BRAINARD was studying medicine in Philadelphia, Chicago had a population of about one hundred—and all its mail was deposited in a dry-goods box. Yet the boom was on, and in the fall of 1835, when Dr BRAINARD rode into Chicago on his little Indian pony, he found a village of three thousand inhabitants. The mortar was already hardening in Chicago's first brick building—erected by GURDON SALTONSTALL HUBBARD and known as 'Hubbard's Folly.' But hogs still roamed thru the business section, and when it rained hard, the placard 'No bottom' was posted near the chief streets, and an old hat floating with the warning, 'Keep away—I went down here,' was a ghastly reminder that men and horses could drown in mud.

But DANIEL BRAINARD walked on the sunny side of the street, and applied to the legislature for permission to open a medical college. It was not a niggardly legislature: in 1837 it sent BRAINARD a charter for his school, and at the same time sent Chicago a charter that made it a city. So a medical college was founded in Chicago—on paper. Six years were to pass be-

fore BRAINARD issued a four-page leaflet, full of typographical errors, announcing that Rush Medical College was open. The lectures were delivered in the office of Dr BRAINARD's wooden house, the course lasted sixteen weeks, the faculty consisted of four men, and twenty-five students were present.

What grows like Chicago? Fifteen years after this experiment, Rush was a flourishing institution, with hospital facilities and famous professors on its staff. BRAINARD himself could not keep pace with some of the teachers. They demanded that the two years of instruction which the college was now giving, be lengthened to three, and that the course be graded. BRAINARD refused to accede to these innovations; the man who had founded the first medical school in Chicago was fighting against improved medical education; it is sad when the pioneer becomes the reactionary.

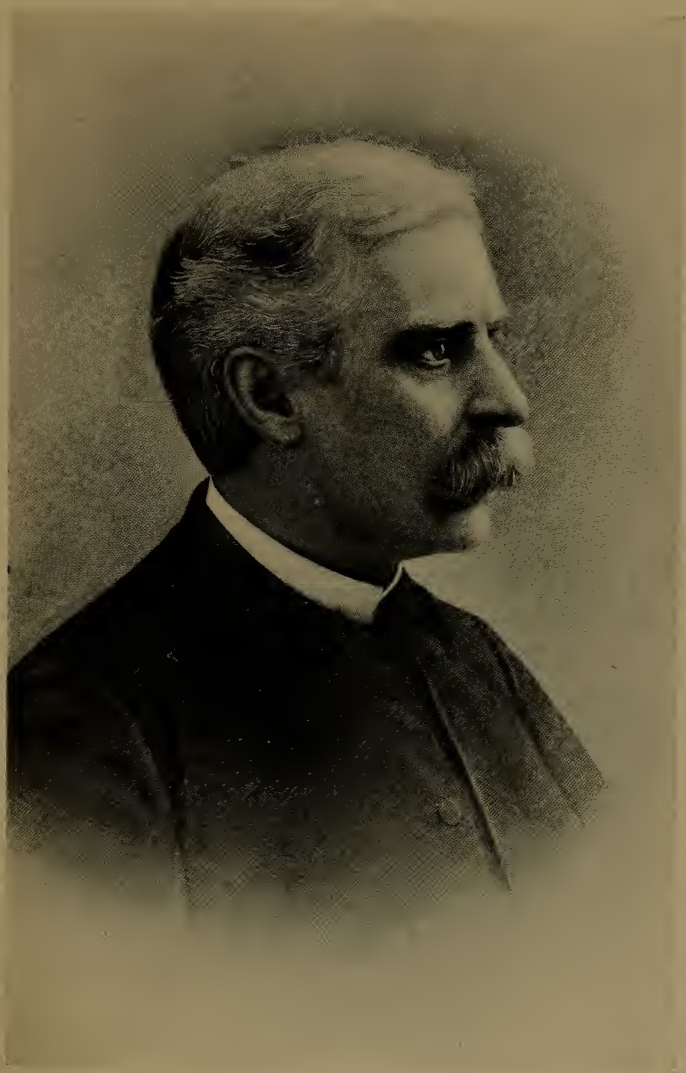
But DANIEL BRAINARD's day had passed: he who cannot keep step with the world's progress is left behind. The most talented instructors on the faculty severed their connexions with Rush, and taking with them the clinical service of Mercy Hospital, the rebels established in 1859 the rival institution known as the Chicago Med-

ical College, and here it was that a bearded Dakotian matriculated eighteen years later.

So a new life dawned for CLEVENGER, bringing with it new pleasures and new troubles—to struggle across the arid wastes of GRAY's *Anatomy*, to scale its mountains of technicalities, to flounder in its swamps of details, to be lost by lamp-light in its jungle of terms, was perhaps as difficult as surveying a waterless prairie. But he was in no danger of flunking. He had read the Vienna Triumvirate, and the army surgeons had taught him anatomy and chemistry. As for *materia medica*, he knew it by rote; he had made the mistake of thinking it was necessary to know the entire *Pharmacopeia* before matriculating, and with his usual enthusiasm and ability he practically memorized the volume from cover to cover; it is doubtful if there was another student in the country who knew the Fifth Decennial Revision of the U. S. P. as well as CLEVENGER.

At least one member of the faculty was about ten years younger than himself—ROSWELL PARK, the demonstrator of anatomy.

WILLIAM E. QUINE, who taught *materia medica* and general therapeutics, was not nearly as venerable as he has since become, but that



Wm. E. Lurie.

he was not too young is evident from the tribute which CLEVENGER hastily scribbled upon the blackboard while the class was waiting—not too impatiently—for the professor's appearance:

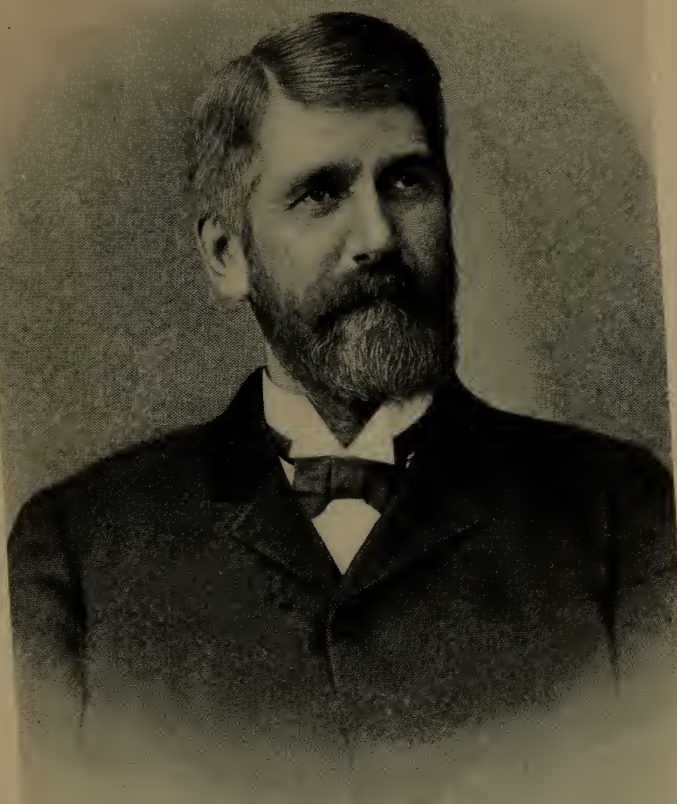
Sound the stage horn, ring the cow bell,
That the waiting world may know;
Publish it thruout our borders,
Even unto Mexico.

Seize your pen, Oh dreaming poet!
And in numbers smooth as may be,
Waft the joyful tidings round us:
BILLY QUINE has got a baby.

ROBERT LAUGHLIN REA, who climbed from the plow to a professor's chair, was the teacher of anatomy. It is something of a coincidence that he had previously taught at the school where MARIANA KNAPP was a student. We may here relate the tale of the flower of the Oxford Seminary: among REA's pupils was a Southern girl, endowed with intellect and unusual beauty. Her charms brought most of the young sparks of the town to her feet, and before her tuition was concluded, she was betrothed to one of these gentlemen. But a story that leaked out of the South, cut the thread of her trousseau. Her lover discovered that she was not a white woman,

but an octoroon—and he promptly disowned her. The maid was in despair, and it became necessary for her father to visit her. Nature is frequently unfair; at the very moment when the father required all his resources to comfort his lovely but distressed child, he fell a victim to disease. Dr REA attended him with devotion, but the cholera added another corpse to its millions of victims. The physician, who was appointed executor of the will, conveyed to its Southern home the body that he could not save; then secretly and successfully, tho at considerable personal risk, he brought back with him his pupil's two sisters, as it was not safe for these young women to remain in that section of the great republic where a bit of extra pigment was made an excuse for slavery. The villain in *The Octoroon* was once well-known in American melodrama; but certainly Dr REA played a hero's part in a real racial tragedy.

REA was regarded by many of his colleagues as the greatest anatomist that Chicago had produced, but he was not a research worker. He seems to have been a master of his subject, altho he did not specialize in anatomy—he owned business blocks on Monroe Street. We understand REA was the first to point out that REMBRANDT'S



R. L. Rea

Anatomy at the Hague, where NICHOLAS VAN TULPIUS demonstrates a dissection to a guild of Amsterdam surgeons, contains the mistake of representing the flexor sublimis digitorum as originating from the outer instead of the inner side of the arm.

While REA divided his affections equally between money and medicine, RALPH N. ISHAM let the scales tip low to the side of cash. He went thru college at the expense of a medical friend, and refused to return the loan until the exasperated doctor drew a revolver upon him. ISHAM's greed was such that he did not interfere when his own father was sent to the poor-house. ISHAM married an albino—she had no color in her iris, but she had green and yellow at the bank. These hateful qualities did not prevent Dr ISHAM from being an accomplished surgeon and an entertaining teacher. Nature often puts talents into the wrong hands. Railroads need men with hearts of steel, and RALPH N. ISHAM was chief surgeon of the C. & N. W. R. R. In swearing to anything that would aid the road lawyers against injured cases, he proved himself unscrupulous.

But CLEVENGER's pet aversion on the faculty was JOHN H. HOLLISTER, the secretary of the

school, and professor of pathology. HOLLISTER was undoubtedly one of the most religious physicians in Chicago: even in ordinary conversation he would fold his hands prayerfully and roll the whites of his eyes heavenward; if patients were willing, he would kneel at their bedside and pray for them, and from Sunday-school pulpits he would relate how he and God cured the sick—tho it was common knowledge among his confrères that he would desert critical cases at critical times. His love of Christ was surpassed only by his love of Coin. He was a poor pathologist—his duties to the Lord left him no leisure to enter his laboratory. He was so occupied with studying ISAIAH, he had no opportunity to read ROKITANSKY. As a lecturer he was incoherent, ‘usually beginning with the therapeusis of the aurora borealis and winding up with speculations upon the climatology of hades.’ It was said that if HOLLISTER should be examined by a state board for qualification as a practitioner, his rating would be as follows: anatomy, 0; chemistry, 0; materia medica, 0; medicine, 0; surgery, 0; piety, 105.

A man of an entirely different stamp was EDMUND ANDREWS, the professor of surgery, Wholesome, kindly, talented, he was the

Rabelais of the faculty in his love of humor—altho an active supporter of the Presbyterian Church—and his laugh was infectious. Many a college quiz and clinic were enlivened by his gayness. ‘Mr HAYES,’ he asked, ‘what would you do in case of post-partum hemorrhage?’ ‘I would tie the post-partum artery,’ bluffed the student. When old ANDREWS heard that, he stood on one leg and laughed, and when he got tired, he stood on the other leg and laughed—and all the boys laughed with him.

ANDREWS rose from a farm-hand to the leadership of the surgical profession in the mid-west. American medicine can tell of many lads who were once forced to cut grass, but later gained permission to place their knives in human flesh. ANDREWS began the study of medicine under ZINA PITCHER—a name that is heard no more, but there was a day when fossils and plants were named after ZINA PITCHER, and he was elected president of the American Medical Association. PITCHER had been a surgeon in the war of 1812, and his pupil rendered similar service in the war of the sixties. Later, ANDREWS organized state societies, scientific academies, journals and medical colleges. He wrote much, but better even than his text-book was his warm nature, which

shone thru every pore of his benevolent face, with its halo of snow-white beard.

WILLIAM HEATH BYFORD—a mechanic's son and tailor's apprentice—was one of the original seceders from Rush, and occupied the chair of gynecology. He was also a founder of the Women's Medical College, and he lectured there for years, as he was a most enthusiastic advocate of medical education for women.

The history of medicine is strewn with blunders, but they cluster thickest on the gynecologic branch. Time can never cleanse the dark pages that tell the story of puerperal fever. When we were a bit younger, every hospital collected bushels of ovaries that should have been left in the pelvic cavity. In BYFORD's day, lacerated cervixes with everted mucous surfaces were mistaken for ulcers, and accordingly cauterized. But MARION SIMS' assistant, THOMAS ADDIS EMMET, sewed them up—trachelorrhaphy—becoming famous, while BYFORD publicly acknowledged that he had committed thousands of these errors. He likewise told of taking a country doctor's diagnosis of cystic tumor; so BYFORD cut into the abdomen, and instead of a cystic tumor he beheld a gravid uterus—but that's an old story.



Mr H Bayford

No man advertises his mistakes, unless he has virtues to match. BYFORD could afford to point out his own shortcomings, because before LAWSON TAIT he advocated laparotomy for ruptured extra-uterine pregnancy; he championed the slippery elm tent, and was among the earliest to employ ergot for expulsion of uterine fibroids; he observed that pelvic abscesses may become encysted and undergo alteration without being discharged, and his name is associated with the innovation of stitching the open sac to the abdominal wound after enucleation of cysts of the broad ligament. His text-books, a *Treatise on the Theory and Practice of Obstetrics*, and the *Medical and Surgical Treatment of Women*, were standard in their time. For years, BYFORD was one of the most familiar figures in the gynecologic and obstetric circles of the city, and all agreed that his reputation was honestly acquired and well-deserved.

Obstetrics at the college was taught by that upright man, E. O. F. ROLER—BYFORD's pupil—who unfortunately suffered constantly and terribly from organic headaches, but lectured splendidly and kept near the head of his profession.

HENRY GRADLE was the physiologist, and an

excellent one; he was noted for his scientific and literary education.

SAMUEL J. JONES was the ophthalmologist and otologist. He was an old naval surgeon, pedantic, pompous, a trifle antiquated, and jealous of the younger generation which was making inroads into his specialty.

JAMES STEWART JEWELL, tall and thin, with impressive and courtly manners, was a member of the first graduating class of the Chicago Medical College, and his first connexion with the faculty was in the department of anatomy. Seven years later he resigned his professorship, his reason being that in order to become a better teacher in the Sabbath schools he found it necessary to visit the Holy Land to study biblical history at its source. Upon his return in 1871—disappointed in the backwardness of Palestine—he decided to specialize in nervous and mental diseases, and was at once appointed to this chair in the college. In 1874 he established the *Journal of Nervous and Mental Disease*, and under his editorship it was the foremost journal of its kind in America, and compared favorably with any similar periodical published in Europe. JEWELL suffered from intestinal tuberculosis, but was a hard and efficient worker. He pos-

Dr. J. S. Jewell

10 East Monroe Street, Chicago

Dear Doctor Cutnam.

I will introduce
 my friend and pupil
 Dr. L. V. Devenport. You may
 have noticed his papers
 in my journal.

Any courtesies you
 may feel like showing
 him will not be in
 vain

Your friend
 J. S. Jewell

J. J. Debnam M.D.
 Marlborough St.
 Boston.

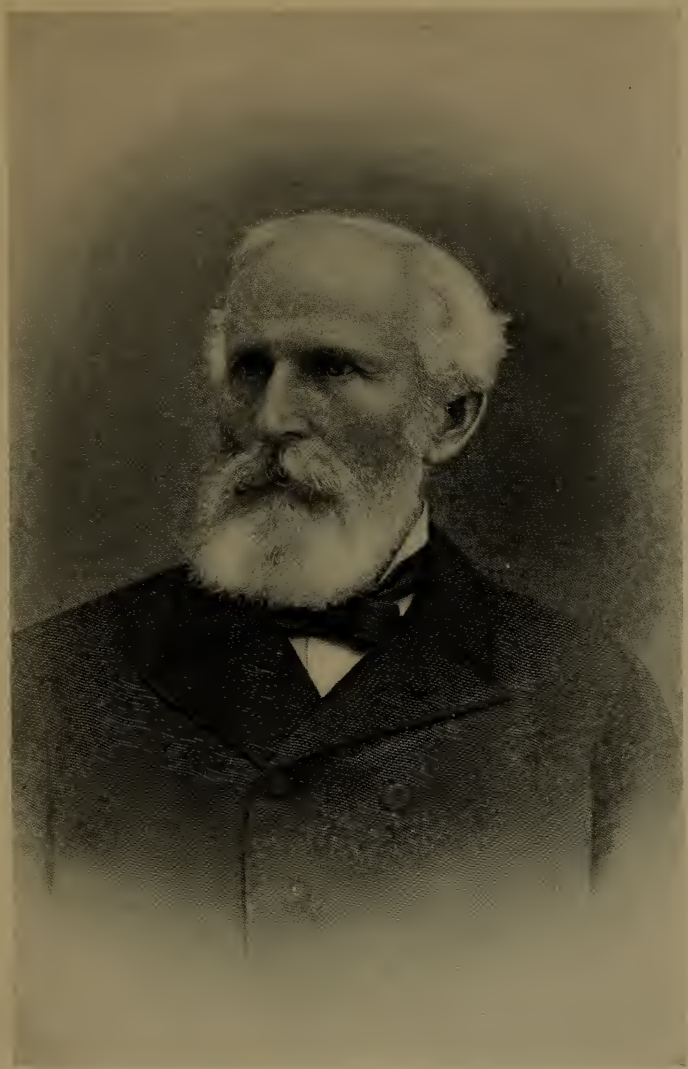
LETTER FROM J. S. JEWELL

sessed the best neurological library in the West. HAMMOND's *Treatise on Insanity* was dedicated to JEWELL, 'whose learning has always commanded my heartiest admiration, and whose friendship is one of the greatest pleasures of my life.' JEWELL was indeed a worthy man, his chief fault being that he wrote his correspondence on fancy note-paper and mailed it in cute little envelopes, so that if you received one of his missives in the presence of company, they were likely to wink and ask, 'What's her name?'

The learned HOSMER ALLEN JOHNSON, the professor of medicine, was probably the best throat and chest doctor in the West at that time tho he himself was a life-long victim of bronchial trouble. He was a fine teacher, an admirable character, an old-fashioned scholar, a credit to the profession. Like ANDREWS and BYFORD and DAVIS, he came from Rush at the time of the schism.

Then there were H. P. MERRIMAN, the gentlemanly and conscientious lecturer on medical jurisprudence and hygiene; MARCUS P. HATFIELD, the professor of chemistry and toxicology; and LESTER CURTIS, the able histologist and teacher.

But towering above all, and eclipsing all, was



H. H. Johnson

the eminent dean of the faculty, NATHAN SMITH DAVIS. No medical event in Chicago was complete without his participation. He was not named—as some have supposed—after NATHAN SMITH, the medical Hercules who founded Dartmouth Medical College, and for a dozen years constituted its entire Faculty, teaching every subject himself. NATHAN SMITH DAVIS, the son of DOW and ABAGAIL DAVIS, was born in 1817, in a log-cabin, barefoot, and stayed that way for several years. He grew up an untutored farm-boy in an unsettled district. One day, DOW DAVIS, standing in the fields, saw him trying to drive a plow and oxen with one hand, and holding a book in the other. DOW DAVIS was not as erudite as JOSEPH LEIDY, but he emphatically knew that decent plowing requires all the hands a man has. Accordingly he decided that since his sixteen-year-old son was more interested in cultivating his mind than the ground, there was nothing to do but send him to Cazenovia Academy.

At seventeen he began to study medicine under the preceptorship of DANIEL CLARK, and soon entered college. DAVIS later achieved the distinction of having a biographer, who says he 'feels perfectly safe in hazarding the assertion

that the student by the name of DAVIS never was passed up, never smoked cigarettes, never came home at night when he was unable to find the keyhole, never fell in love with the college widow, and never indulged in any of the rowdyish freaks which have always accentuated and frequently disgraced student life.' In 1837, while still a minor, DAVIS graduated from the College of Physicians and Surgeons of Western New York; the school has long been silent, but in those days it harbored a teacher like THEODORIC ROMEYN BECK, the greatest American name in medical jurisprudence. More than ninety years have gone by since his *Elements of Medical Jurisprudence* appeared, but like JAMES PARKINSON's description of paralysis agitans, it remains unsurpassed.

Immediately after obtaining his diploma, Dr DAVIS settled in Vienna—Vienna, Oneida County, State of New York, not the other Vienna. NATHAN SMITH DAVIS was too much of an American to waste any time abroad. We have been told that the foreign Vienna is the gayer of the two, but the young doctor did not find it dull where he was, for there was a girl in town named ANNA PARKER—who was not a college widow—and it may be maintained that a youth

who woos a maid in Vienna, Oneida County, State of New York, is less lonesome than a youth who doesn't know an enchantress in the real Vienna. They were married, and remained in that civil state for over sixty-six years.

DAVIS grew too big for the place, and came to New York City in 1847. The following year he delivered a course of lectures on Medical Jurisprudence, his favorite subject ever since he heard THEODORIC ROMEYN BECK. He probably expected to remain here for some years at least, but JOHN EVANS, professor of obstetrics at Rush Medical College, was in the East at this time, and invited DAVIS to occupy the vacant chair of physiology and pathology. Thus, in 1849, when the college was six years old, DAVIS became a westerner in order to join Chicago's earliest medical institution. Ten years later he was one of those who spoke to BRAINARD of increased instruction, periodic examinations and entrance requirements—tho he had none himself—and when DANIEL BRAINARD said, 'Not necessary,' DAVIS was one of those who walked out of Rush, and in a short time he was delivering the introductory lecture at the new Chicago Medical College.

It was as dean of this institution—the first in this country which demanded three years of

graded instruction—that DAVIS became the most celebrated medical man in Chicago, unless he was such already. He founded societies and hospitals, and by his successful efforts to organize a national medical association he earned that badge of fame—a sobriquet. Just as BENJAMIN RUSH is known as the American Hippocrates, and JOHN MORGAN as the Father of American Medical Education, and PHILIP SYNG PHYSICK as the Father of American Surgery, and JAMES THACHER as the Father of American Medical Biography, and BENJAMIN WATERHOUSE as the Jenner of America, so NATHAN SMITH DAVIS is known as the Father of the American Medical Association; he is the only man who was twice its president. DAVIS was a powerful speaker and a writer of ability. Among his numerous works are the *History of Medical Education and Institutions in the United States*, and *History of the American Medical Association*. He was the first editor of the *Journal of the American Medical Association*, and had edited seven other periodicals.

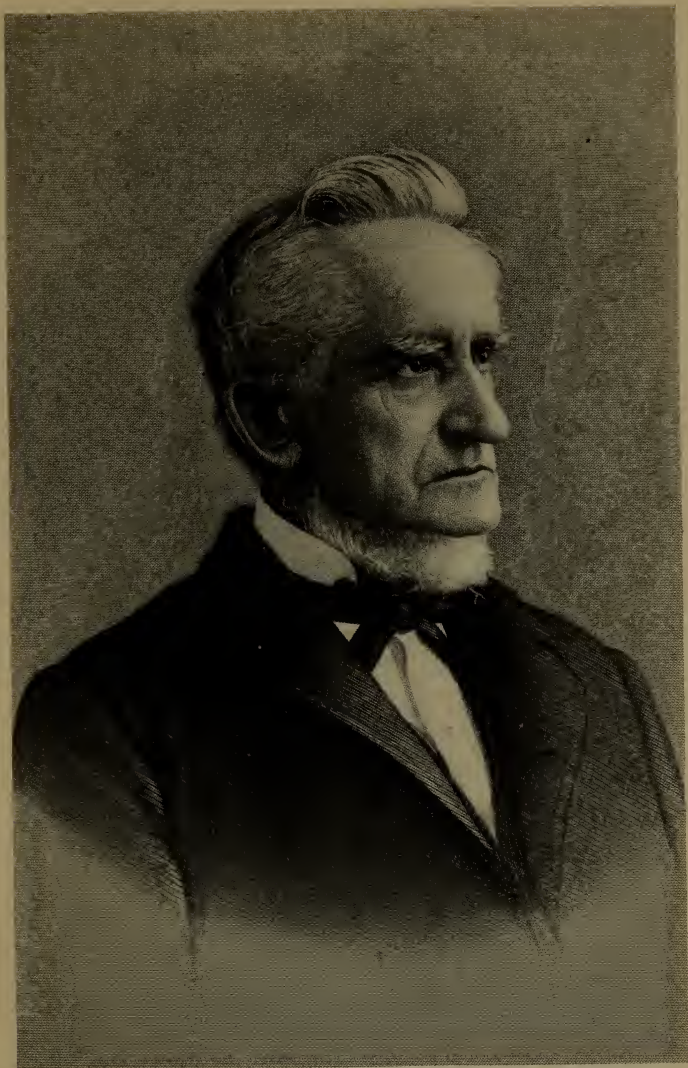
He made no contributions of importance to the science of medicine, but impressed himself upon his profession and generation by his forceful personality. He was always 'a character.'

In spite of the encomiums which have been heaped upon his virtues, and much of which he undoubtedly deserved, it is a matter of congratulation that his type is passing away. AGASSIZ may have been a fanatical opponent of Darwinism, but he remained a pioneer in ichthyology; AUSTIN FLINT was certainly an obscurantist in religion, but he was open to new ideas in physical diagnosis; MARION SIMS may have been undemocratic in his penchant for royal glitter, but he was always a pathfinder in operative gynecology. But NATHAN SMITH DAVIS was an all-around bigot—a bigot in religion, a bigot in politics, a bigot in science. After helping to reform the medical curriculum in 1859, he closed the door of his mind and would no more think of allowing a new idea to enter than of changing his Andrew Jackson face and swallow-tailed coat.

For years he opposed everything new in medicine. Seeing the hypodermic syringe used in Europe, GEORGE T. ELLIOTT and FORDYCE BARKER introduced it into America, but DAVIS met it with anathemas. During the civil war JOHN SHAW BILLINGS used a clinical thermometer, and later the elder SEGUIN wrote books about the instrument, but DAVIS thundered against the innovation. 'Why do I need a ther-

mometer?' he cried. 'Can't I tell a fever with my hand?' DAVIS was fond of lecturing on typhoid fever, and would give a long list of etiological factors which he regarded as conclusive. 'And yet,' he added in ineffable scorn to the class of 1879, 'some day some Dutchman will come along and tell us that typhoid is caused by a bug!' And the very next year a 'Dutchman,' named CARL EBERTH, did come along and prove that typhoid is caused only by a 'bug,' and today every dispensary-patient knows it.

Not a hint of these characteristics is to be found in the biography of DAVIS or in any sketch that we have seen; apparently Dr DANFORTH thought it more important to open his tenth chapter with the solemn statement, 'It is an historic fact which I have upon the excellent authority of Mrs DAVIS herself that Dr DAVIS never tasted an alcoholic beverage in all his life.' At a testimonial banquet given in honor of DAVIS, ROBERT H. BABCOCK said, 'As an alumnus of the old Chicago Medical College, I call on you to rise, and in that beverage which Dr DAVIS loves and has continued to pledge his life, drink to his health.' 'Pure water,' exclaimed DAVIS, 'nature's universal aseptic; it disorders no man's brain; it fills no asylums or prisons; it



N. S. Davis

begets no anarchy, but it sparkles in the dew-drop, it glows in the peaceful rainbow, and flows in the river of life close by the throne of God. Let us take it, not only as guests here, but for the whole profession of America.' Let us also, if we feel convinced that the water contains no typhoid bacilli, drink to the memory of the sturdy old Doctor who meant well. Spiritus frumenti and spiritus vini gallici have been denied a place in the latest edition of our Pharmacopeia: we wish there were also a way of expelling narrow-mindedness from science.

So on the whole it was a worthy and competent teaching-staff, comparing favorably with any that could be found in the United States. CLEVENGER was glad to breathe the atmosphere of a temple of knowledge. He fervently hoped that never again would his path in life cut across a political trail—for within the sanctuary of science what boodler dare intrude? The Hon. MICHAEL McDONALD, Cook County's boss, under whose foot Chicago bent; King MIKE in truth, no man receiving any city job without his approval, no man being discharged without his consent, ruling the mayor, dictating to judges, controlling the police, selling the streets to rail-

ways, collecting and disbursing the taxes and revenues—even he could have no jurisdiction over a disciple of HIPPOCRATES. CLEVENGER was now among scholars and gentlemen: he had looked his last upon the grafter's face.

The fourth of March, 1879, was the great day which crowned the ambitions of years—graduation. The exercises were held at Plymouth Church on Michigan Avenue. The dean and members of the faculty sat on the platform—which was further decorated with banners and flowers and ladies. A large concourse had been invited and looked with interest at the ex-students. But it is to be feared that the new doctors were not over-attentive to the clergyman's invocation or to the dean's opening address. Even on solemn occasions boys are not inclined to listen to the advice of old men.

Indeed, only the previous year the seniors went so far as to print a circular of their own—outside of the official program. The Faculty heard of the affair, and on graduation night every boy was searched, but nothing was found—of course not, since some friendly girls smuggled the circulars in under their shawls. And while the minister was calling down the divine

blessing upon the assembly, these leaflets were distributed, and it is surprising that Dean DAVIS escaped a fit of apoplexy, for seldom has GUTTENBERG'S invention issued so scandalous a screed. On the first page, in large letters, was the announcement: 'Another Batch of Sawbones to Swell the Already Hyperemic Ranks of the Disease Accelerators.' Under the heading, 'Bill of Fare,' were these items:

Music—Pity the First Patient.

Prayer—Now I Lay Me Down to Sleep.

Music—Why Don't the Baby Come?

(Intermission to allow the ushers to sprinkle chloride of lime over the feet of the graduates.)

Grand Entré—The saloon keeper and laundryman with due bills. Panic among the students.

Undress—Class Picture as an Anthelmintic.

Valedictory.—Vermiform Appendix as a Switch.

Music—It is Finished.

On the second and succeeding pages, under the caption of 'Chancres,' various classmates were characterized; we select, from the original circular, some of the more reserved:

G. B. ABBOTT: He wanted to be Valedictorian, and by voting for himself twice succeeded in getting three votes, thus showing his popularity with the class.

E. MOORE: As friends, we advise you to proffer your services to a bird store on Clark street, where a young man is wanted to chew crumbs for sick canaries.

J. W. DALL: This cross between a half-breed and an anthropoid ape will make a first class abortionist, as that sickly smile of his would give a parturient woman convulsions.

P. M. WOODWORTH: The appearance of this lean, lank, lantern-jawed limb of laziness is so suggestive that he had better resolve himself into an agent for a tombstone factory.

W. R. SPEAKER: He cannot tell the difference between the Eustachian and Fallopian tubes, altho he has devoted the last three years to calico dresses and petticoats.

N. J. NEILSON, alias CHARLIE ROSS: Carry the news to his paternal ancestors that CHARLIE is alive, and today graduates at the Chicago Medical College. Rumors afloat that he was preserved in alcohol. BARNUM has telegraphed to his agent to secure him at any price. CHARLIE has consented, and will travel as BARNUM's What is it.

Personal: An embryotic physician, rather tall (6 ft. 6), not handsome, sore eyes, but rich (as Job's turkey), wishes to correspond with a lady of color, on Biler avenue. Address Dr HASTINGS or BUCK, C. M. C.

S. MAC WILEY: The valedictorian will disembowel himself before the august assembly. For profundity

of thought and prolixity of expression he is par excellence. He is an oratorical flower by the wayside. Gaze upon the prodigy, the wind-bag of nothingness.

Just to prove that youthful audacity has no limits, the conspirators capped their impudence by announcing that the leaflet was printed by the *Journal of Nervous and Mental Disease*. Poor Professor JEWELL!

If we could follow CLEVINGER's classmates out into the world, no doubt we would find that some became rich in practice, and others wondered why luck was against them; that most of them married, and that a few remained deaf to the harmony of wedding-bells—yet all these things we merely surmise from our general knowledge of the human race; we really possess no authoritative information, for oblivion has covered the tracks of the class of 1879, and we must bid these boys farewell.

Only CLEVINGER has come across our horizon, and we have already seen him carrying the tin-can from Dunning to his home several miles away. If we wonder as to its contents, our curiosity will soon be appeased, for he has now reached his room and approached his laboratory-desk; he takes off the pail's cover, carefully turns the pail over, and out rolls the brain of a lunatic.

Ever since his graduation he had been engaged in neuro-pathological studies, performing autopsies at the asylum, and bringing the brains to his room for detailed investigation.

III

MEDICINE UNDER KING MIKE

ABOUT this time there was a proposition to appoint a special pathologist to the asylum, and what more logical candidate was there than Dr SHOBAL VAIL CLEVINGER? He was already doing the work—privately; now let him do it—officially. Some of the most prominent physicians in Chicago—Dean DAVIS and Professor REA among them—wrote letters urging that he be appointed. The superintendent of the asylum, Dr J. C. SPRAY, was favorably disposed towards him and one day proposed, ‘Come along with me and see if you can pass muster.’

To CLEVINGER’s astonishment he brought him into a drinking-saloon on Clark street; the proprietor, an ordinary-looking fellow, was leaning on the customer’s side of the long counter. SPRAY went over to him and CLEVINGER heard him whisper, ‘This is the doctor I was telling you about.’ At these words the saloon-keeper raised himself, looked at CLEVINGER for a mo-

ment, nodded quietly, and put out one finger for him to shake. 'I congratulate you,' smiled SPRAY to CLEVINGER.

It seemed like a joke, yet they were in a serious place: on the first floor were the wines and liquors, on the second floor were the roulette wheels and faro layouts, while the third seemed limited to whoredom—yet that den was the true City Hall of Chicago, and CLEVINGER had touched the hand of royalty. It was King MIKE whose nod had made him Special Pathologist to the Cook County Insane Asylum; had MIKE turned away from him, all the recommendations of all the physicians in Chicago would have availed him nothing.

It smote the conscience of CLEVINGER to accept a position from MICHAEL McDONALD—yet it was his heart's desire. He found excuses for himself; he looked at JOHN CAMPBELL SPRAY; he too was a medical man and an alumnus of the same school, and still he remained superintendent of the asylum for years with apparently no trouble.

No sooner did CLEVINGER enter the asylum as pathologist than all doubt vanished. The materials for original study were so vast, every one of the seven hundred patients presented so many

interesting problems, that his contentment was supreme. He grudged every moment he had to waste on eating, sleeping, shaving—his wife had her troubles. He was surprised to find that no records of cases had been kept, so he secured large blankbooks and wrote up the histories from all available data. He was forty years of age, and to the strength of a man he added the enthusiasm of a youth. Day and night he was on the go—diagnosing new cases, re-examining old ones, making post-mortems, cutting with his microtome, looking thru his microscope, preparing reports for the press—he filled scientific periodicals with his contributions.

CLEVENGER became known as a man worth watching, and when the time came to elect a new superintendent, he was asked to be a candidate. Unwilling, however, to spend time in administrative duties, he suggested for this position Dr JAMES GEORGE KIERNAN, who was elected. Another change was made by the Commissioners. Dr SPRAY had been given entire control of the institution, but Dr KIERNAN's authority was divided, for he was the medical superintendent only, while Mr HARRY VARNELL, a handsome fellow, was appointed warden, and took charge of the domestic and financial management.

CLEVENGER was glad that KIERNAN had superseded SPRAY. For SPRAY proved to be one of those doctors who like to be considered ethical by their confrères, but like still more to eat the political pie. Altho descended from Quaker parents, he seemed to have borrowed his manners from MIKE McDONALD's gang, for he was constantly threatening to whip and shoot people, and on the slightest provocation pulled out his revolver. Moreover he was as ignorant as medical politicians usually are. CLEVENGER had come across a female patient who alternated her stuporous state by somersaulting along the ward corridor; examining her further, he was interested to find it was a case of katatonia, an uncommon disorder which had been described by KAHLBAUM of Görlitz. Immediately he told SPRAY of his discovery, and was met with the retort, 'The damned Dutch are always doing things like that. I never heard of that, and I don't believe there is no such disease.'

Then KIERNAN was certainly more interested in reform than SPRAY. And as time went on CLEVENGER could not help but notice gross abuse. Even before KIERNAN's appointment he was impressed with the fact that a lady physician was needed for the female department. CLEVENGER

thought of two influential women whom he knew, Mrs HELEN SHEDD and her friend Mrs ELLEN HENROTIN, the wife of Mr CHARLES HENROTIN, the first president of the Chicago Stock Exchange, and known as 'the most decorated man in Chicago,' because of the numerous ribbons and medals he received from foreign governments where he had served as consul. CLEVINGER discussed the subject with them, mentioning that a lady physician had never been appointed to a public asylum before and detailing what qualifications she would have to possess. 'Such a woman as you described to me,' answered Mrs SHEDD a few days later, 'would require almost an act of special creation, yet I fully understand you cannot abate one of the requisitions named, as they are vital to the success of the experiment.' Mrs SHEDD and Mrs HENROTIN managed to interest the Chicago Women's Club in the matter, with the result that on May 1, 1884, Dr DELIA E. HOWE moved into the asylum—and found plenty to do.

CLEVINGER had not been long at Dunning before he heard that the milk given to the patients in the dement wards frequently caused fatal epidemics. Examining this milk he found it of low specific gravity and of acid reaction, but he found

no suspicion of cream. Always curious, he determined to learn what became of the cream. One day he waited in the kitchen ice-house, and saw an attendant skim the cream from the milk-cans and carry it outside. Then he understood. For out in the yard were expensive kennels where King MIKE kept his hunting-dogs—thorobred hounds, setters, pointers, retrievers. CLEVENGER went back to his work of classifying patients. . . .

There was little F. S., only six years old, the youngest patient in the asylum. He was a victim of heredity, the usual etiology of insanity. Show us one hundred lunatics and we know what caused the mental disease in most of them: the parent. In the Cook County Insane Asylum were whole families, father or mother, and brothers and sisters, with occasional uncles and aunts and cousins, all insane together. Well might they curse the ancestry that brought them forth with a germ-plasm biologically defective, and bitterly may we condemn that system of society which encourages these unfortunates to sow their malformed seed.

There was JOSEPH C., the Bohemian shoemaker. He would be sitting or standing on the grounds, quiet and subdued, when without warning such an uncontrollable rage would seize him

that it required a force of strong attendants to hold him. Agile and crafty, he once bolted thru the door, and in spite of his straight-jacket ran up the ladder to the roof, and danced upon the chimney-tops. But he sold his freedom for a plug of tobacco; it was held out to him as a bait, and while attempting to take it with his teeth, his feet were pinioned, and like a wounded eagle he was returned to captivity.

There was R. D., the Scotch bookkeeper. He had been an exhorter in the Methodist Church, and all was well until in a newspaper he noticed an advertisement about the errors of youth. As he was guilty of involuntary seminal ejaculations he knew the advertisement was personally aimed at him, and he further knew it was inserted by a Reverend Doctor INMAN, of New York. To escape this malign advertisement he fled home, but it stared him in the face from his native village paper in Scotland. He sailed to Montreal, but found every one discussing INMAN's advertisement. He shipped to the Indian archipelago, but the bluff old sea-captain insinuated that Scotchy was not as pure as he might be. He went to Cape Town, South Africa, and there he saw INMAN's advertisement printed in Boerish Dutch—altho he didn't understand a word of

Boerish Dutch. He hastened back to America, but noticed that the Chicago police had read IN-MAN's advertisement, for they followed him wherever he went. Indeed, one policeman got on the same car that he did; his forbearance was at an end, and he struck the city guardian to his knees. He was promptly arrested, but after telling his tale of persecution was not sent to prison but to the asylum.

There was EMIL REIN, the old German musician. For years he was the leader of a musical society in Chicago, but alcohol jarred the melody of his life. He became so abusive to his relatives that he was sent to Dunning. Here his behavior must have delighted the recording angel. It was his pleasure to teach music to the children and to play for the amusement of the patients. His amnesia was marked, and he could not remember the names of his pieces, but when some one started to hum or whistle the air, he played it with skilful fingers. At the asylum the children led him into the music-room, and after he had given them their lesson they led him back to his ward, for he was as docile as a lamb in a picture. His conduct was so irreproachable that he was sent home; immediately he got drunk,

seized an ax and smashed his piano, and tried to murder his family.

There was MARY F., whose mother and sister were also confined to the asylum. She lay crouched upon the floor, with her beautiful black hair drawn across her face, listlessly passing her fingers thru the entangled coils, but beneath the sable meshes was a bloated visage without reason.

There was INGAR R., a Scandinavian. She was useful in the ward, helping with the sewing and cleaning; she had regal manners, frowning severely upon all, but smiled complacently if petted or flattered. A grand juror, a countryman, once visited the asylum and spoke Swedish to her; she answered all his questions so intelligently and otherwise spoke so rationally that he angrily demanded her instant discharge upon threat of bringing the matter into court. INGAR was told to go to her room to dress for town, while her bumptious compatriot waited for her. She reappeared with a gilt paper crown on her head, a robe of many colors with window tassels at the hem, and a broom-stick for a scepter. Pompously approaching the grand juror, she informed him she was the Queen of Tragedy and the Queen of Song, and a few other queens, and would fine him five dollars for daring to smoke

in her presence—but his mouth was too agape to hold a cigar.

There was young MARY RYAN, the Irish immigrant. A happy and innocent girl, she had lived on her father's farm near Dublin. She married and came with her husband to America, and in the pitiless streets of Chicago he left her, friendless, penniless, pregnant. She gave birth to a girl baby at a public place, and was transferred to the asylum. She raved incessantly. She never slept. Sedatives had no effect on her. She died exhausted.

There was JAMES C., the lawyer who was picked up in the streets of Chicago after the great fire. That terrifying conflagration which escaped man's mastery, the uncontrolled flames mocking the firemen for half a week, burning at Chicago's heart and leaving the city homeless, made many candidates for Dunning. The lawyer claimed he was trying a case in court when the judge turned into a boa-constrictor and the jury into monkeys; he had hallucinations of sight and hearing, yet retained much of his former legal ability, and one of the asylum attendants who had stolen a horse sneaked this lawyer out to the trial, and the insane attorney successfully defended his client. He was one of the show

patients, but would not reply to queries until the visitors handed out some chews of tobacco. Once he turned inquisitor himself and asked, 'You know that SUSAN B. ANTHONY is president of the United States?' 'Yes,' answered the caller, thinking it expedient to acquiesce in all that an insane person said. 'And you know that ANDREW JACKSON is vice-president, and that HARRIET BEECHER STOWE is secretary of war, and that we have captured England?' 'Yes.' 'Well, you know a blamed sight more than I do, and you're the bigger fool of the two.'

Another fire victim was a motherly soul, a pious respectable matron who claimed to be Mrs LINCOLN, and consistently said her maiden name was TODD; she would sew industriously until visitors annoyed her with questions, and then would turn on them with an unexpected torrent of filth and ribaldry.

There was SAMUEL N., the English lithographer, insane over spiritualism. He claimed he was arrested for writing an article in the *Religio-Philosophical Journal*. He worked several years in the asylum drug-room, and jocularly remarked that he 'never got further than pounding cinchona bark.' He could be trusted anywhere on the grounds, as he was under the im-

pression the spirits would not let him leave. He threatened to take away spiritualistic control from bastard mediums, but conferred mediumship upon CLEVENGER. Every morning he adorned the trees with proclamations against ghosts, of which the following is a characteristic example: 'Little Church Round the Corner. Moral Church we bury our brothers in one piece. In honor of the canons of our order. Ladi Lado Lade Ladum Lady. These ladies know nothing about Red Stockings. In honor of the Nitric Acid ceremonies.'

There was DANIEL S., the negro teamster. He imagined himself the wealthy owner of coal mines. Once he saw God drive in a chariot to his window and heard him say, 'DANIEL, come out.' Accordingly he smashed his iron bed and employed it as a weapon to batter down the panels of his door, and it required several attendants to prevent him from obeying the Lord's command.

There was J. S., the German printer. His case excited attention and was reported in the newspapers. He had fallen in love with a young lady who was living with his wife; she returned his passion, but as she could not marry him, she committed suicide. Husband and wife identi-

fied her body when it was fished out of the lake. After that nothing in life interested him, and he could speak of nothing except his misfortunes. The cloud of melancholia settled upon him. He attempted to drown himself, had unsystematized delusions of persecution, and saw the young lady alive. Many graves opened to him, and he spoke to persons who had long been dead. CLEVINGER induced him to read an article in the *Zeitschrift fur Psychiatrie*, and the patient was startled to meet a case similar to his own. It sort of gave him a look at himself; his mind cleared, and he was discharged as cured, going back to his compositor's trade.

Another interesting patient was P. KELLY, the policeman. He was patrolling Halsted street bridge when he was shot in the neck by a burglar. The result was a wound of the cervical sympathetic, causing incurable insanity, a genuine case of mania from traumatism. The case was discussed by Dr H. M. BANNISTER in the *Journal of Nervous and Mental Disease*, and later was reported by Dr CLEVINGER in the *Chicago Medical Journal and Examiner*. The burglar, a friend of MIKE McDONALD, was accidentally sentenced for a term of six years, but as soon as he came out of the penitentiary, MIKE

made amends by appointing him an attendant at the asylum, and he was assigned to KELLY'S ward, thus having charge of his shattered victim.

So the cases ran, hundreds of them, illustrating every variety of mental disorder; not only those we have named, but imbecility, idiocy, stuporous insanity, transitory frenzy, brain lesions, and the usual assortment of senile dementes and the hebephreniacs, 'stranded on the rock of puberty.' . . .

At length CLEVENGER completed his classifications of the patients—on paper, but he wanted to do the same thing in fact. He therefore approached Warden VARNELL, and informed him that if the mild cases could be separated from the violent ones, their chances for recovery would be increased. He started to explain how the treatment of the insane could be made more scientific, but his enthusiasm was cut cold by a reply which he never forgot: 'To hell with the damned cranks,' answered HARRY VARNELL. 'They are cattle to me, and I don't give a damn for them and am here for boodle. I'm going to make a pile out of the bughouse, and start a big sporting place in the city.' Evidently the ambitious warden was not satisfied with the medium-sized gambling saloon that he already possessed. While

CLEVENGER's interest in pathology did not cease after this conversation, he determined to do some research work in the sociology of the place.

CLEVENGER had read that for certain cases of mania a new drug was being recommended—sulphonal. The conium which was used at the asylum was often inert and unreliable and he requested the warden to purchase five or ten dollars' worth of sulphonal for the drug-room, which was so poorly stocked that there was less than a dram of quinine at a time when many of the patients were suffering from intermittent fevers. VARNELL refused with his customary oath, saying the damned sulphonal was too expensive. But CLEVENGER learnt that the next week there was bought by the management \$1,500 worth of whisky, wine and cigars—charged as sundry drugs. He learnt also what became of these drugs, for on Saturday night he heard a female giggle the command, 'Quit pouring champagne down my back, HARRY.'

These Saturday night frolics were gay affairs. As soon as it grew dark, gangsters and their women arrived, keeping up night-long orgies that made the inmates furious for want of sleep. Sometimes they would amuse the patients by shouting, Fire! It must have been a curious

sight for CLEVENGER to watch these thugs and sluts dancing on the patients' health and on the people's money. The asylum was the ideal place for such revels, for it contained expensive Turkish and Russian baths, built 'for the patients,' but the scaldings discouraged them from indulging in these luxuries, and it became the regulation thing for politicians to sleep off their debauches in the bath-rooms, being massaged to soberness by the county rubbers, for which the people seemed to pay cheerfully, as it was not proper that the County Commissioners should be drunk too long.

CLEVENGER met some of these jolly Commissioners from time to time. There was JOHN HANNIGAN, the saloon-keeper; MIKE WASSERMANN, who ran such a notorious resort under the Brevoort that it was closed by the police; DAN WREN, the skilful forger, recently out of jail; MIKE MCCARTHY, the ex-stevedore, who found politics more profitable than his former job; BUCK MCCARTHY, the drunken terror of the stockyards district, a strong animal who won elections with his fist.

These were the individuals who had charge of an American medical institution in the latter part of the nineteenth century. PINEL and CHIA-

RUGI, GARDNER HILL and PLINY EARL spent years attempting to ameliorate the conditions of the insane; to remove iron fetters and brutal keepers from these helpless people was the aim of the devoted lives of DOROTHEA DIX and JOHN CONOLLY; REIL and the TUKE family worked with tongue and pen to improve the lot of their fallen brothers, and the great ESQUIROL wrote *Des maladies mentales* in two volumes—but MIKE McDONALD didn't read French.

The inmates of the county asylum in 1883 might just as well have lived before PINEL's day, for they derived little benefit from the modern methods of treating the insane. WILHELM GRIESINGER, of Stuttgart, made important suggestions about clinical psychiatry in his *Archiv*, but he was another of those 'damned Dutchmen.' The trouble was that politics ruled the asylum, while science was the despised outcast. The meanest attendant there knew that his job was more secure than the physician's.

On the first of September, 1884, Dr CHARLES KOLLER was elected assistant physician, and in November he was discharged—probably because he found maggots in a festering ulcer. The doctor left his effects for a time in his room; they were thrown out into the hall by the housekeeper,

and VARNELL threatened to shoot him if he saw him again.

Dr JAMES G. KIERNAN, upon becoming medical superintendent, decided to make some changes. He issued three orders: first, that the attendants should restrain patients only under a physician's direction; second, that the night-watch should not administer medicines without a physician's specification; third, that all employes should take off their hats when passing thru the wards, and if they found it necessary to speak to the patients should address them as Mr, Mrs, or Miss, according to their civil state.

No attention was paid to these requests, but Dr KIERNAN, an impractical man, went further. He ordered that all bruises and injuries inflicted on patients should be dressed at once. Also, he closed the liquor room for a time, and the engineer got so angry he swore he would kick the door down if he didn't get his share of beer and whisky. A female patient was suffering from a disorder peculiar to her sex, and in violation of all the rules of common humanity and hygiene, the housekeeper, Miss McANDREWS, took her from her ward and set her to scrubbing floors. When Dr KIERNAN expostulated with her, she answered, 'I do not propose to have anything to

do with you or your orders.' The entire medical staff united in a request for Miss McANDREWS' discharge, but they were invited to go to hell, and Commissioner LEYDEN announced that if Dr KIERNAN mentioned the subject again he would make it hot for him.

For such and similar attempts at reforms Dr KIERNAN was knocked down by an attendant, struck by the engineer, and choked by the night-watchman so that he had a hemorrhage and was confined for some time to his bed. 'What are you going to do about it?' asked the political employe. 'You haven't got enough pull to fire me.'

Dr DELIA E. HOWE may have appreciated the honor of being the first medical woman in a public asylum, yet at times she found fame a troublesome bubble. She found that the patients were insufficiently clothed, even tho they brought clothes with them—the attendants often stole the patients' bedding and raiment to help pay gambling debts; and while suffering from a lack of proper garments, they were employed in making fancy work for the housekeeper and others; nor were they allowed to come from their rooms until the task was completed.

The dope-bottle was freely dosed out to patients to keep them quiet, directly against the

doctor's instructions. Dr HOWE found that the drug-room was turned into a saloon. Often she had to wait for a prescription needed for an urgent case, until the druggist had served with beer, port, sherry, or whisky a room full of men. She never visited the drug-room but with trepidation, and always felt relieved when she left its degrading atmosphere. The pharmacist repeatedly remarked that the drugs sent to him were unfit to be compounded, and he complained of being turned into a bar-tender.

Dr HOWE was much annoyed to find that the mechanics had keys to the female wards, and visited them at all hours of the night. The assistant engineer was frequently detected there, amorous, intoxicated, half-dressed. The female patients were all more or less mentally upset, but several of them, like the actress CAPITOLA DELZELL, were neat in their habits and comely in face and body—and they were also helpless. Some of them had relatives at home, praying and waiting for their recovery, but rape was not likely to aid in their mental restoration. It was now easy for Dr HOWE to understand where the illegitimate babies came from, nor was it difficult to comprehend why mothers who had insane children fell on their knees before judges and im-

plored them to send their daughters anywhere except to Dunning. Such outrages were known to the community, and had Chicago been one of WALT WHITMAN's great cities, 'where the populace rise at once against the never-ending audacity of elected persons,' the county commissioners and their henchmen would have dangled from the nearest telegraph-poles. But instead of that a male attendant who had been relieved of his key because he entered a female ward too clumsily at one o'clock in the morning, received the instrument back the next day, and Chicago boasted that the statistics of the cattle industry showed an increase over last year.

One of Dr HOWE's associates observed an employe pounding a defenceless dement, and when she sought to remonstrate, she received what she called her 'first taste of discipline,' for he gave her a blow that felled her to the ground. 'What are you going to do about it?' he asked. 'You haven't got enough pull to fire me.' DELIA HOWE had been a missionary in China—perhaps that ruffian's fist convinced her that reform should begin at home.

The food, so important a consideration in the treatment of the insane, would have been rejected by an average house-dog. A carpenter

named HUGHES once saw the butcher dump a load of putrefying meat in the kitchen. 'What do you do with that?' he asked. 'That's for the cranks.' 'In the name of goodness, you don't mean to say that you cook that for them?' 'No, I don't, but the cook does. They don't know the difference.' The patients were far away from the sad sea-waves, yet there was such a lack of fruit and vegetables that many of them suffered, and some of them perished, from the former 'calamity of sailors,'—scurvy.

The chief article of diet was pigs' heads, hair and dirt and all—they were brought to the tables unshaved and uncleaned. With her spoon Dr HOWE lifted up from a patient's plate the head of a hog suffering from catarrh, and in its unwashed snout was an iron ring. When the relic was exhibited to the commissioners, MIKE WAS-SERMANN queried, 'What did you expect to find—gold watches?' But the other commissioners viewed the situation with more perspicuity, and accordingly decided: Whereas, it is unseemly that iron rings should be found in pig-snouts, and Whereas, precautions must be taken against the recurrence of such an accident, Resolved, that no more lady physicians be employed at the asylum. Exit, Dr HOWE.

CLEVENGER's mail and telegrams were not delivered, and once when he stepped into DYCHE's drug-store, Drs QUINE and BAXTER happened to be there, and they asked him why he did not answer telephone calls—their messages to him had been intercepted.

CLEVENGER was informed he could perform no more autopsies—it was against religion. This was an astonishing bit of news for a pathologist, but there was really nothing surprising about it: the commissioners were selling the bodies to the medical schools.

A patient complained of being ill, and was constantly going for water. The attendant said to him, 'Come, JACK, if you won't work I'll put the jacket on you.' 'I can't work.' So the jacket was put on. In a day or two the patient died; cause of death—'typhoid fever.' Not only were the male employes a coarse set of men, but several of the female attendants were frequently drunk and always impudent. Ireland seemed to have emptied her scum into the Cook County Insane Asylum. Attendants were so neglectful that their charges found opportunities to commit suicide; some of the patients died from starvation, others from violent brutality. A father named AUGUST HERZBERG came to the asylum to visit

his son, and was treated to the spectacle of seeing four attendants attack the boy and tear nearly all the clothes from his body, after which they knocked him down and kneeled on his stomach, accusing him of concealing some trivial article.

At the end of the nineteenth century, the conservative Secretary WINES, of the State Board of Charities, thus described the condition of the insane in Illinois:

They are sometimes chained to the benches and to the floors; penned up in pens without any doors, but only having holes in the wall thru which to pass food and water; kept locked up in solitary rooms for years, without going out or setting foot on the ground. The keepers intimidate them by brute force. Pistols are sometimes fired over their heads.

In what respect does this picture differ from the one that ESQUIROL drew at the beginning of the century, when he wrote to the Minister of the Interior:

Nude were the lunatics I saw, covered with rags, stretched on the pavement, a little straw to defend them from the damp cold. I saw them grossly fed, deprived of air to breathe, of water to slake their

thirst, and of things necessary to life. I saw them committed into the hands of whippers, a prey to their brutality.

Upon reaching manhood's estate, after mature reflection, SHOBAL VAIL CLEVINGER had decided to abandon his profession of engineer and become a physician in order to escape the political criminal, and by a trick of fate he found himself the crony of drunkards, gamblers, burglars, ravishers, murderers. He had eluded Captain HOWGATE, but bumped into the arms of MIKE McDONALD.

There was one day in the year when MIKE McDONALD and BUCK MCCARTHY and HARRY VARNELL shone in especial strength and splendor—election day. By working hard that day they lived in ease for the days to come. There was a young Jewish dreamer who had imagined that when all the people won the franchise and marched to the polls, each citizen expressing himself by ballot, the dawn of democracy and the triumph of justice would tread on their heels—the end of demagogues and tyrants, the era of the Brotherhood of Man. But if practical politicians ever heard of FERDINAND LASALLE, they must have laughed his pipe-dreams to scorn. At

the back door of MIKE's saloon, in the alley, was a voting-shed with a little window cut out of boards; during the general elections in Chicago the citizens passed thru the crooked lane, holding up their ballots and a hand collected them. The owner of the hand was invisible, but whoever he was, he could have informed the father of social democracy how candidates are elected.

On the fateful November morning of the year 1884 the bosses got ready to round up their herds of cattle. MIKE McDONALD issued orders from his gambling-dive, BUCK MCCARTHY polished his fists, and HARRY VARNELL gave his revolver a love-tap. The warden had a congenial task before him: to make the suburbs of Chicago vote one way—his way. In the second precinct of Norwood Park there registered a total of 129 voters, but under VARNELL's adroit management 225 votes were cast, 207 for his ticket. Among the exponents of higher mathematics, a W. H. FROGART, known to local fame as Cracker Bill, excited the admiration of the gang by the number of times he re-voted. Paupers from the poor-house, and the insane from the asylum, were brought to the polls to increase the ballots, and as VARNELL had not erudition enough to invent aliases for all of them, they were registered un-

der the cognomen of some Chicago celebrity, as PAT CARROL, AUSTIN DOYLE, MIKE McDONALD, HENRY DONOVAN.

It might be presumed that with legitimate voters and tax-payers it was found necessary to adopt more subtle and refined methods than were employed with beggars and lunatics, but VARNELL knew only the methods of intimidation and fraud. Early in the day an honest old farmer, HERMAN SCHROEDER, cast his ballot, number 155, and went home; later another vote was deposited in his name, number 176. The vote of JOSEPH KOENIG, also a farmer, was cast out without any adequate cause. An assistant engineer under Mr KAVANAUGH voted according to his convictions, and was discharged. RICHARD SUSSICK, a laundryman at the infirmary, possessed a political creed that was not above suspicion—in fact he belonged to the opposite party. VARNELL watched SUSSICK when he voted, and said to J. K. BEATTY, ‘Keep track of that vote; I want to see it when the count is made,’—it was before the Australian ballot. Now DICK SUSSICK was no plumed hero; he was a laundryman who wanted to keep his job, and he voted VARNELL’s way. Dr CLEVINGER also was threatened with expulsion if he did not vote according to

directions, but the ward heeler LEE doubted if he would be obedient. E. D. SMITH, an old resident of Norwood Park, was incensed at the wholesale bulldozing. 'Things have come to a pretty pass,' he remarked to VARNELL, 'when in this enlightened section of the country a man can't vote as he pleases.' 'I don't propose,' replied VARNELL, angrily, 'that any man who eats bread and butter under me shall vote any other ticket.' Such was the boasted freedom of the American voter.

In the corral there was hardly a decent kick. One after the other the victims stepped meekly forward to be branded by VARNELL's iron. It was now seen why he had been made warden—he was a handy man for the gang. Then came the surprise. Some one was untamed and unlassoed, some one had proved balky and was rearing high, allowing no rider on his back. The loafers in MIKE's saloon put down their beer glasses and listened. It was unbelievable, but there it was—in the first column of the third page of the *Chicago Inter Ocean*. It was headed *Appeal to Physicians*, and spoke of the numberless outrages against the patients that the politicians in charge had been committing for years, and urged all honest men to be sure that the county

commissioners for whom they voted bore no allegiance to these gamblers and thieves. In those days it was dangerous to be a reformer in Chicago; either he was privately stabbed in the back and thrown in a sewer, as happened to Dr P. CRONIN, of the Clan-na-gael, when he proved that ALEXANDER SULLIVAN was gambling away on the board of trade the patriotic money that had been collected to liberate Ireland; or else the agitator was legally executed, as happened to labor leaders like ALBERT PARSONS and AUGUST SPIES. The man who wrote the *Appeal to Physicians* and affixed his signature to it was the bravest man in Chicago, and the name that it bore was S. V. CLEVINGER, M.D.

That night a bullet came crashing thru his room, narrowly missing his wife and daughter, breaking a pane of his book-case, and lodging in a volume of GEGENBAUR's *Comparative Anatomy*. As CLEVINGER could not afford to lose his valuable books in this manner, he resigned his position. Never again was there a special pathologist at the Cook County Insane Asylum.

Dr CLEVINGER was by no means the first physician who walked out of the asylum because of political corruption. Some years previous, three reputable neurologists—Professors JEWELL,

BROWER and LYMAN—were connected with the asylum; as soon as they clashed with the ring they escaped from Dunning, quickly and quietly, and rarely alluded to their experiences. These men were good in imparting text-book knowledge and in preparing students for examinations—they were not reformers. But in Dr CLEVENGER the gang found a different species of the genus homo. Armed with evidence, bitter with indignation, eager for justice, CLEVENGER vowed not to rest until he had exposed the county commissioners.

He procured affidavits from various individuals testifying to the outrages they had witnessed. CLEVENGER tried to induce the Union League to listen to this material, but the director was 'just going away on his vacation.' CLEVENGER left a statement of abuses with the secretary of the Chicago Citizens' Association, and that enterprising individual copied the accusations, and sent them—to MIKE McDONALD. CLEVENGER appointed a committee of the Chicago Medical Society to investigate the matter, but its members either compromised with the politicians or grew luke-warm—all except sturdy old Dr PAOLI, who fought against the asylum clique as vigorously as he fought in favor of his two hob-

bies: women in medicine, and the freethought propaganda of TOM PAINE and BOB INGERSOLL. Mrs SHEDD and Mrs HENROTIN, faithful as ever, headed a reform group, and CLEVINGER urged the Women's Club to help in the crusade; they gave him a pink tea, and the wives and daughters of Chicago's successful business men listened to his recital of horrors, and smilingly told him they enjoyed his lecture very much—it was more interesting than the minister's description of the scenery of Palestine. Everywhere CLEVINGER found these sloughs of unconcern that dampened his hopes. He appealed to preachers of various denominations, but they 'declined to discuss politics in the pulpit.'

At last the popular Rev. DAVID SWING agreed to bring the woes of the county asylum before his large congregation; his sermons were reported in the Monday papers, and CLEVINGER bought a copy of the *Inter Ocean*, anxiously turning to the second page where Dr SWING's eloquence filled three columns. In the first, he spoke of Noah and Elijah, of the oaks of Dodona and the raving Sibyl, of the dog Cerberus and the Golden Fleece, of Queen Mab and Paradise Lost, of Aladdin's lamp and the ruins of Calypso's grotto, of Adam and Eve and the council

where Satan went as the ambassador of evil, of the Ides of March and the idea of the Trinity—one topic had no connexion with another, but the pastor of the flock had to show off his classical knowledge; in the second column he mentioned perhaps half the names that are found in the index of TAINÉ'S *History of English Literature*—the REV. DAVID SWING was certainly a learned gentleman; in the third column he excitedly asked if the imagination was dying, and with many exclamation points and ejaculatory remarks he proved it was not, far from it, on the contrary. But what had he said about the atrocities at the asylum? Amid his flowery apostrophes he had uttered this line: 'To the diploma of medical science must be added one signed by the merciful name of Jesus Christ.' Three columns of inane twaddle, while CLEVENGER had expected that SWING would risk his popularity by attacking current conditions. O Simple Simon—as HILGARD warned you in Washington: Go home.

CLEVENGER wrote article after article for the newspapers, and the editors wore out their blue pencils and overfilled their waste-paper baskets. Several times his life was in peril; he received requests to make night-calls in neighborhoods

where he previously had no patients. He was about to go, but on second thought decided to let ROBERT BRUCE go instead. BOBBY was a private detective who tried hard to get some excitement out of modern life by drinking to excess, by brandishing a revolver, and by mixing up in mysteries; he wounded a man in a boarding house, slew the proprietor of a saloon, and spent a year in prison, but otherwise was an honest and reliable fellow, except when drunk. On his letter-heads was a radiant eye beneath the motto *Fides et Justitia*, while at the side a spider was spinning a web above the maxim, We never give up. BRUCE investigated the 'patient,' found there was no such person at the address given, but that two tough politicians, GLEESON and RYAN, had concocted a plot to pounce upon the doctor and 'do him up.' He further discovered that the engineer KAVANAUGH offered a former convict \$100 if he would kill CLEVINGER. These were CLEVINGER's rewards: stupidity, misunderstanding, laughter, threats. One poor man against a powerful clique—mountains of discouragement rose in his path.

Yet somehow, some way, somewhere, there came a turning of the tide. The accumulated evidence overflowed the high banks of indiffer-

ence. From all sides witnesses poured in, adding fresh tales to CLEVENGER's accusations. As the testimony proceeded, it involved merchants whose reputations were considered untarnished. Governor OGLESBY summoned the State Board of Charities to investigate the situation.

In the crowded court room CLEVENGER met the county commissioners:

'Did you ever see me at the asylum in an intoxicated condition?' asked Commissioner VAN PELT.

'Yes, sir,' answered CLEVENGER.

'How drunk, please?'

'So drunk you could not navigate.'

'Did you ever see me at the dances at the asylum?'

'Yes, sir, I have.'

'Was I drunk?'

'You were.'

'Was I accompanied by disreputable women?'

'You mingled with women who were boisterous and slangy.'

'How did I act?'

'Disgraceful.'

Commissioner WASSERMANN then mounted the stand:

'Did you ever see me drunk at the asylum?'

‘Yes, sir.’

‘Did you ever see Commissioner OCHS drunk at the institution?’

‘No, sir, not Commissioner OCHS.’

‘Commissioner HANNIGAN?’

‘Repeatedly; I seldom saw him sober.’

The commissioners had devised this meeting with CLEVENGER, thinking he would not dare attack them to their faces—but this was the time that they miscalculated. Why, even the plans of the Hon. MICHAEL McDONALD sometimes went astray; for instance, MIKE did not care to cross the ocean, but he wished to enjoy the beauties of Paris, so he visited a French woman until it was time to save her good name; thereupon MIKE offered a policeman several thousand dollars, a house on Washington Boulevard, and a city position for life if he would marry the transplanted Parisienne and father the forthcoming child; the limb of the law accepted the offer; it was a clever plan, but alas—when the baby girl grew up she resembled MIKE, nose and mouth and eyes, and she smiled sweetly, just like her daddy.

But where was MIKE during the troublous days that the alarmed commissioners were being pelted by the muckrakers? He and his fam-

ily were down south, enjoying the palmettos of Asheville, North Carolina—till MIKE's vacation was cut short by a telegram in cipher. The dapper boss hastened to the asylum, burnt the books and records, and lit a cigarette. The worst was over—now let the prosecution proceed. Thruout the trial, confessed his wife, nightly conferences took place in the mansion of the master boodler.

The callers used to sit there and wrangle until after midnight, and the loud talk would reach the room upstairs where Mrs McDONALD was sitting, and often she would come down and warn them to lower their voices—BOB BRUCE might be eavesdropping. Father LEYDEN, brother of the implicated commissioner, was there; and the wives of DAN WREN and HARRY VARNELL frequently spoke of their husbands to Mrs McDONALD. Of course the ringsters came, noisy as ever, drinking, smoking, swearing. But there was another class of visitors—men who were supposed to be above reproach, whose names were good for untold sums along State street, and they were pleading before MIKE as if for their lives. Mrs McDONALD, according to her own words, had seen hundreds of men unnerved by drink and losses at play, but in those few months

she heard more lords of creation break down and sob than in all her previous interesting career. As she neatly expressed it: 'They'd been boodling—that was all—and they didn't want to be caught.' One night she opened the door for a prominent merchant—she blackmailed him later to keep his name secret—and she saw he was in tears; two hours later he came out of MIKE's room, smiling. He noticed the chief's wife sitting near the hallway, and he said to her: 'We're thinking of running Mr McDONALD for mayor in the spring, Mrs McDONALD.'

But the slick grafters could no longer make Chicago smile. From everywhere arose a cry of wrath. Those Chicagoans who were in the habit of reading their newspapers at breakfast had to swallow a lot of dirt with their morning coffee. The *Tribune*, *Daily News*, *Inter Ocean*, *Herald*, *Times*, united in a chorus of denunciation.

'The county commissioners,' wrote one of the leading papers, 'are blackguards who have prostituted their trust by making a pot-house of the Insane Asylum and insulted honest idiocy by flaunting Jezebels. Their disgusting crimes, perpetrated at the public expense, are not likely to be the subject of legal investigation with a

view to punishment, for they themselves make the grand juries whose duty it is to examine into the management of county institutions. And the guzzling, lying, thieving rascals of commissioners kept the public jug for the benefit of those jurors.'

But at last the boodlers had overstepped the limits of the city's tolerance. They had stolen too much—ten million dollars within a few years—and by their cruelties they made Chicago blush for its reputation. 'The story is a terrible one to go to the public outside of Chicago,' said the *Inter Ocean*. 'Does a condition of affairs exist in the Cook County Insane Asylum which would disgrace an African slave-kraal?' asked the *Daily News*.

So State's Attorney JULIUS S. GRINNELL saw his opportunity; he instituted proceedings against the county crooks—the omnibus boodlers' bill' was on its way. We must immediately acquit the wide-awake State's Attorney of any humanitarian motives; GRINNELL was interested exclusively in GRINNELL; he was a 'get-there Eli,' but he knew his business, and the verdict that he secured was one terrible word: guilty.

Commissioner HANNIGAN escaped to Canada, but those of his fellow boodlers who were not so

fleet of foot were put behind stone walls and iron bars. HARRY VARNELL and VAN PELT were among those convicted. It was April when little VAN PELT passed into the prison-yard at Joliet; he looked up at the trees laden with springtime buds, and he said, 'The leaves are coming out—I wish I was a leaf.' Even a county grafter may have a glimpse of the Tennysonian soul.

The law left MIKE McDONALD alone, but his wives were his ruin. MIKE's first wife ran away with a minstrel-man; MIKE went after them, and he didn't kill BILLY, and he brought his wife back. She was extremely devout, and for her sake MIKE built a private confessional in their home, and took in a priest for her personal use. Within a year she developed such piety that she and the Raphael-faced priest eloped to New York—accompanied by Mr McDONALD's diamonds. This time MIKE did not follow the mother of his children; he went to a certain saloonkeeper and bought his wife from him. The original Mrs McDONALD did not find love and religion profitable in Manhattan; her tonsured swain appropriated her property and disappeared. She wrote to her son WILLIAM for money, admitting she was destitute. The boy brought the letter to his father; MIKE rested his

chin in his hand, rubbed it a little, and said quietly, 'WILL, she's your mother.' She received the funds, returned to Chicago, and visited millionaire merchants, threatening to expose their transactions with MIKE—unless hush-money was forthcoming. Later she invaded the red-light district and opened an assignation-house. Once she was in the saloon at 121 South Clark street—in other days it had belonged to MIKE—and a quarrel arose; she was familiar with the place, and she put her revolver thru a small spyhole in the wall and shot one of the gamblers. She went out by the back door and was never brought to trial. MIKE's second mate was also a sport: she entered the studio of her artist-lover and killed him. She, too, escaped prosecution; a Mrs McDONALD was safe in Cook County. Life is a gamble; many a worthless pander has won the slavish faithfulness of women, while MIKE the mighty, who bossed an army of men and used the County of Cook as his backyard, and was the warmest-hearted fellow in his crowd, couldn't keep the devotion of a couple of strumpets. These domestic difficulties took the joy out of life, and he died a broken-hearted millionaire.

But even before he left the streets of Chicago forever, he ceased to be a power in politics. MIKE



CLEVINGER, in 1888



CLEVINGER, in 1892

allowed his lieutenant, JOSEPH MACKIN—Gentleman Joe and Chesterfield Joe, the gang called him—to serve a prison term for an election conspiracy, and bitter feelings were brewed in the political pot. Later, MIKE played another unforgivable trick: to secure the franchise for a long elevated route it was necessary that an ordinance be passed by the city council, and in the presence of forty aldermen MIKE wrote forty names on forty envelopes, placed a thousand-dollar bill within each and handed the precious packet across the counter to a trustworthy bartender. Forty men hastened away to vote for MIKE's franchise, and forty men hastened back to receive their reward; they called for their envelopes, tore them open, and each found a dollar bill. The city council was enraged; mutiny awoke within MIKE's camp, and encompassed by enemies, the chieftain fell; politicians arose on Clark street who knew him not. Thus ended the reign of King MIKE.

In the city of Chicago are many statues, but somewhere in her numerous parks or along her ample boulevards is space for one more: a monument should be erected to Dr SHOBAL VAIL CLEVENGER, the pioneer anti-boodler of the state of Illinois.

IV

THE KANKAKEE AFFAIR

C LEVENGER'S adventures in jurisprudence did not terminate with his retirement from Dunning. The special pathologist was metamorphosed into an expert, and his services were requisitioned in spinal concussion and insanity issues—at the rate of one hundred dollars a day. During his career as an alienist he was summoned to Ohio, Wisconsin, Nebraska, Iowa, Indiana and Pennsylvania, tho naturally most of his cases were in Chicago.

Back in the thirties, ISAAC RAY wrote the *Medical Jurisprudence of Insanity*, thus opening the darkest chapter in American medicine. Juridical medicine is a hybrid incapable of any virtue. Unfortunately, it is medicine and not the law that suffers in this instance. Transplanted from his clinic, confused in the meshes of the hypothetical question, heckled by some 'smart lawyer,' the physician usually makes an ass of himself. But this is by no means the worst.

The law-court has become an auction-block where medical experts sell themselves to the highest bidder. The side that has money to spare can procure the number of experts it wants, and just the sort of testimony it wants. Much of the disrepute into which our profession has fallen is due to the alienist.

Chicago's most brilliant lunatic—FRANK COLLIER—listened to Dr KIERNAN attempting to prove him insane. COLLIER, who was a lawyer, conducted his own defence, and began to cross-examine KIERNAN. Within a few minutes the expert was floundering helplessly in a bottomless swamp of misstatements and contradictions. They argued about paresis, and the layman showed a more intimate acquaintance with the subject than the alienist. The attorney tripped and trapped the doctor, and got him so rattled and excited, that it looked very much as if the squirming KIERNAN and not the self-possessed COLLIER was the insane man. 'Easy now, easy now, doctor,' cautioned COLLIER, 'you are exhibiting the very symptoms that you are charging against me.' COLLIER later wrote an article in which he declared KIERNAN had the dress of a Zulu, the manners of a Patagonian, and the face of an orang-outang.

CLEVENGER was likewise called upon to testify in this remarkable case, but no Kiernanistic calamities befell him. On the witness-stand he was genial, alert, frank; his answers showed an extensive acquaintance with the practice and literature of psychiatry, but he never pretended to omniscience, was willing enough to say, 'I don't know,' and thus was not discomfited. CLEVENGER could have been a successful alienist—if conditions in the courts were different. But since even such a hardened defender of Things-as-They-Are as ALLAN McLANE HAMILTON finds it necessary to condemn the present system of expert-testimony, it is not surprising that the soul of CLEVENGER revolted against this 'degraded expert business,' to quote his own bitter phrase.

In 1893 there came an unexpected change in the affairs of Dr CLEVENGER. In that year, for the second time, Mr CLEVELAND was elected president of the United States; GROVER CLEVELAND was one of the men the author of *The American Commonwealth* had in mind when he wrote his chapter, 'Why great men are not chosen presidents.' But the CLEVELAND landslide brought a man of another stamp into the executive chair of Illinois—JOHN P. ALTGELD. Wading across the filthy morass of American

politics have been a few clean spirits, such as HENRY GEORGE and Golden Rule JONES. To this small group Governor ALTGELD belongs. That he was a politician cannot be denied; he knew how to sling the buncombe. 'I like Chicago,' he told a Chicago audience at the Auditorium. 'I would rather be a private citizen in Chicago, standing around on the street-corners with my hands in my pockets, than be the greatest potentate on earth somewhere else.' (Applause.) But there was another side to ALTGELD. His book *Live Questions* proves him to have been no vulgar partyite; portions of it might have been signed by JOHN STUART MILL or by AUGUST BEBEL.

During ALTGELD's administration occurred the great Pullman strike, in which EUGENE V. DEBS gained prominence and six months in jail; the president of the United States was for calling out the federal troops, but the governor of Illinois, with finer intelligence, protested, 'Hands off.'

In one of the state prisons ALTGELD found three men—the remnants of an effort to improve the fate of workingmen at a time when conditions were unbearable, and when police officers like Captain BONFIELD behaved as bru-

tally as Cossacks under the ROMANOFFS. After repression, the explosion; there was a riot on Haymarket Square, a policeman named DEGAN was killed by a bomb thrown by an unknown person, a fusillade of bullets was fired at random into the crowd, and the law laid its hand on eight agitators—AUGUST SPIES, LOUIS LINGG, ALBERT PARSONS, ADOLF FISCHER, GEORGE ENGEL, MICHAEL SCHWAB, SAMUEL FIELDEN, OSCAR NEEBE. Their ringing speeches in court should have aroused the hosts of labor, but instead of a glorious awakening, Chicago—goaded on by the ever-vicious press—stained itself with the unforgettable crime of November 11, 1887; on that black day the gallows turned ALBERT PARSONS, AUGUST SPIES, GEORGE ENGEL and ADOLF FISCHER into martyrs. LOUIS LINGG, the youngest and most picturesque of the group, was likewise scheduled for slaughter, but his sweetheart gave him a dynamite cartridge for a farewell gift, and he bit the souvenir between his teeth and blew his intrepid head across his cell. The innocent FIELDEN, SCHWAB and NEEBE were sentenced to Joliet State Prison, and there ALTGELD found them after seven years of incarceration—and liberated them. His *Reasons for Pardoning*, proving that the anarchists were

sent to their doom by a packed jury and corrupt judge without evidence, constitutes the most masterly defence of freedom that ever issued from the gubernatorial chambers at Springfield. ALTGELD thus became the only official who earned a tribute of gratitude from that fiery poetess of discontent, VOLTAIRINE DE CLEYRE:

There was a tableau! Liberty's clear light
Shone never on a braver scene than that.
Here was a prison, there a man who sat
High in the halls of state! Beyond, the might
Of ignorance and mobs, whose hireling press
Yells at their bidding like the slaver's hounds,
Ready with coarse caprice to curse or bless,
To make or unmake rulers! Lo, there sounds
A grating of the doors! And three poor men,
Helpless and hated, having naught to give,
Come from their long-sealed tomb, look up, and live,
And thank this man that they are free again.
And he—to all the world this man dares say,
Curse as you will! I have been just this day.

The emotion which ALTGELD could inspire, may be sensed from one of those unforgettable epitaphs in the *Spoon River Anthology*:

Tell me, was ALTGELD elected Governor?
For when the returns began to come in

And CLEVELAND was sweeping the East,
It was too much for you, poor old heart,
Who had striven for democracy
In the long, long years of defeat.
And like a watch that is worn
I felt you growing slower until you stopped.
Tell me, was ALTGELD elected.
And what did he do?
Did they bring his head on a platter to a dancer,
Or did he triumph for the people?
For when I saw him
And took his hand,
The child-like blueness of his eyes
Moved me to tears,
And there was an air of eternity about him,
Like the cold, clear light that rests at dawn
On the hills!

As governor of the State it devolved upon ALTGELD to appoint a medical superintendent for the Illinois Eastern Hospital for the Insane, at Kankakee—the largest institution of the kind in Illinois, and the second largest in the United States: 40 acres covered with buildings, 800 acres under cultivation, herds of cattle, the board of trustees, the medical superintendent and staff of assistant physicians, the business manager, the chief clerk and other clerks, the nurses and train-

ing-school students, the stenographers, the engineers, the plasterers, the brick-masons, the painters, the male supervisor, the female supervisor, the book-keeper, the store-keeper, the watchmen, the 300 attendants, the 1,000 male patients, the 1,000 female inmates—it was a little empire of the insane on the banks of the muddy Kankakee.

For fourteen years, ever since its foundation in 1879, this demesne had been ruled by Dr RICHARD DEWEY. His conduct seemed to give general satisfaction, and strong pressure was brought to bear upon ALTGELD to allow DEWEY to remain superintendent. But the governor declared he had investigated the state asylums, especially Elgin, Jacksonville, and Kankakee, and found the management simply rotten. 'I am determined to have some new blood at the heads of these institutions,' he declared, 'and no amount of whimpering will prevent it.'

When ALTGELD served as judge he had listened to the testimony of various alienists, and had been particularly impressed with the extensive learning and broad sympathy of one of these neurologists; and now that the time came for ALTGELD to choose a medical superintendent for the most important insane asylum in his state, he

thought of this man, and the result was that on the third of March, 1893, a doctor whose office was at 70 State street, and whose sign bore the name S. V. CLEVENGER, M.D., received this communication from the chairman of the committee on elections:

I just came from the Governor, and he told me he intended to appoint you superintendent of the Insane Hospital at Kankakee. I could not tell him whether you were a democrat or not, but I hope you are. Please let me hear from you on that point and whether you will accept the position when tendered.

C. PORTER JOHNSON.

The information was a complete surprise to Dr CLEVENGER. During the past decade he had built up a fairly lucrative practice, lectured somewhat and wrote much, attended to his duties at the Michael Reese and Alexian Brothers hospitals, appeared frequently in court—at other men's trials—kept out of politics, and had no thoughts of connecting himself with a public asylum. The request was flattering, but it was also disturbing. He was on friendly terms with RICHARD DEWEY, and refused to displace him; only when Dr DEWEY wrote that his relations with Kankakee had already been severed by the political ax did

CLEVENGER begin to consider the matter. How to dispose of his practice and furniture was another problem, but CLEVENGER was accustomed to moving, and decided he would go to Kankakee.

Every newspaper in Chicago printed the news, and some shed tears at DEWEY's dismissal, while others praised the governor's choice. After the announcement in the press, CLEVENGER received congratulations from various sorts of men, ranging all the way from E. D. COPE, one of the glories of American science, down to T. S. ALBRIGHT, a boodling ex-county commissioner.

It is curious to note that one of CLEVENGER's friends, ALFRED C. GIRARD, major and surgeon in the United States Army—he has since become a general—sent regrets instead of congratulations:

I wanted to write you when I first received the newspapers announcing your probable appointment and then the accomplished fact. I wanted to say to you that I saw this change in your fortunes with regret, for two reasons. First, I am satisfied that you will be so crowded with administrative business that you will necessarily drop back from your advanced position as an investigator, and secondly, this appointment

depends greatly on the good pleasure of some political party, and when sooner or later you will have to try to regain your position in private practice, you will find the berth occupied by numbers of men, who meanwhile have won the confidence of the public, but who would not have attained prominence if you had remained in the race.

I trust I am mistaken. For the sake of the State and its insane I am satisfied that no better appointment could have been made and your career will be a successful one. Still I must repeat that I fear that it will be lost time.

CLEVENGER came to Kankakee under more favorable auspices than he had come to Dunning: instead of a recent college graduate, he was an experienced professional man; instead of being only the pathologist, he was the chief physician; instead of a brutal warden to thwart him, he had an intelligent governor to aid him; instead of an asylum buried in corruption, he was in an institution of honorable reputation. His fervent hope was that the Board of Trustees was composed of men who bore no resemblance to the County Commissioners; the board consisted of President EDMUND SILL, agent for the Illinois Central Railroad, at Clinton; J. W. ORR, a banker at Tuscola, who must have been educated

in the eighteenth century, for when he wrote a letter he capitalized all his words; the local members were the secretary-treasurer, D. C. TAYLOR, and F. D. RADEKE, aptly described by the *Chi-*

Effie L. Lobdell

Geo. Brown

J. R. Foster

Adolf Meyer.

Honore E. Valin

Isabel M. Dananport

Delia E. Howe

MEDICAL STAFF AT KANKAKEE
during CLEVINGER's superintendency

cago Record as 'a brewer of Kankakee and a pillar of the Lutheran church.'

Dr CLEVINGER was glad to find Dr DELIA E. HOWE at Kankakee; another interesting woman on the medical staff was Dr EFFIE L. LOBDELL. Once a lunatic was choking to death, and the

male doctors began running around looking for their instruments, but EFFIE thrust her hand into the patient's throat and pulled out a piece of glass two inches square.

CLEVENGER had not been long at Kankakee when a young man, with whom he had a slight acquaintance, came to the institution in considerable distress, and related that he had written to the board of trustees applying for the position of pathologist, informing them that he had worked under the direction of the ablest men in Europe, and had references from H. H. DONALDSON of the University of Chicago, E. C. SPITZKA of New York, FOREL of Zurich, and DEJERINE of Paris, yet no attention was paid to his application. Suddenly he asked CLEVENGER what he was doing at Kankakee, and much astonished and delighted was he to learn that CLEVENGER was the new superintendent, for CLEVENGER gave him the pathologist's place, thus putting him on the first round of the ladder of success, for that young man was ADOLF MEYER of Zurich, the present Professor of Psychiatry at the Johns Hopkins University.

One of CLEVENGER's early acts was to inspect the general conditions of the inmates, and the first examination proved that the insane are not

immune from the ailments of normal mortals: fifty patients were found suffering from eye troubles, twenty-five had diseases of the ear, ten needed treatment for hernias and painful ruptures, two hundred and fifty women were afflicted with some uterine derangement, and almost everyone had decayed teeth.

The regular staff could not cope with this mass of pathology, but CLEVENGER secured the services of several Chicago specialists—dentists, ophthalmologists, otologists, gynecologists. As they gave their skill gratuitously, CLEVENGER could not expect them to pay their own fare to and from Kankakee, so he invited the Illinois Central Railroad Company to participate in the charity, and the road immediately furnished free transportation to these visiting doctors.

There was no reason why the trustees should oppose this innovation except that it was an innovation—but this is usually a sufficient reason for trustees, and the voluntary specialists were soon excluded from Kankakee.

CLEVENGER had intended to make Kankakee a civil service institution, but on the seventh of March, only four days after the chairman of the committee of elections informed him of the proffered superintendentship, he received from FREE

P. MORRIS a note to the effect that he should appoint ROBERT O. PENNEWILL business manager of the hospital. Two months later he told CLEVINGER to appoint CHARLES HARWOOD storekeeper. But who was FREE P. MORRIS that he issued orders to Dr CLEVINGER with such an air of assurance? In the first place, he was a rascal, but in the second place he was the Iroquois member of the Illinois legislature, and chairman of the committee on judiciary of the house of representatives. Then Trustee SILL instructed CLEVINGER to appoint HUBERT REYNOLDS farmer at the asylum farm. Then Trustee ORR sent word to CLEVINGER to appoint Miss JENNIE BRINTON stenographer. Then Trustee RADEKE forwarded his nephew E. RADEKE to CLEVINGER, with a note of introduction stating, 'Any ting you can do that may lead to his fourture wilfare will be aprivated by me.' From this note, which was one of his most careful literary efforts, as it was written in ink instead of with his usual pencil, it will be seen that F. D. RADEKE spelled like JOSH BILLINGS—but JOSH was only fooling. RADEKE could afford to scoff at book education; he manufactured lager and Vienna bottled beer, and like the brewers whom SAMUEL JOHNSON immortalized, he was 'rich beyond the dreams of avarice.'

Oh, merit is a fine thing, and civil service rules have no equal, but the way to enter the Illinois Eastern Hospital for the Insane was to cultivate the acquaintance of FREE P. MORRIS and the Board of Trustees.

Too many people came to the Kankakee institution who had no legitimate business there—crowds of idlers, troops of excursionists, giggling and babbling visitors curious for a new sensation, and some suspicious-looking characters who conversed in low tones with the employes or even with the Board of Trustees. No self-respecting hospital for diseases of the flesh would tolerate such disturbances—why then should a hospital for diseases of the mind permit this nuisance?

On the twenty-first of May, CLEVENGER decided to introduce a new rule: all who entered the grounds had to sign their name; not that he was particularly anxious for their autographs, but it would give him an idea of the number of visitors, and might serve to keep some away. Little did CLEVENGER anticipate the rage which this regulation fomented; the employes were ready to mutiny, the strangers cursed 'the autocrat,' the Board of Trustees spoke of dismissing him, and the *Kankakee Times* bespattered him with

editorial dirt. Some of the local wits sang this quatrain:

Is my name written there
On its pages bright and fair;
On the register of the Hospital,
Is my name written there?

Within a week the registry-book was thrown into the waste-heap, with many blank pages destined never to know a human name.

There was one day that especially annoyed CLEVENGER—the Sabbath; every summer Sunday the street-cars could be seen filled with passengers bound for RADEKE's beer and then the hospital. Finally Dr CLEVENGER issued a circular *To Visitors*, explaining that the grounds were overrun with pleasure-seekers who intended no mischief, but whose thoughtlessness had precisely the same effect as if they were purposely malicious. He pointed out that near the wing wards are paths meant as short cuts for employes, and in defiance of notices posted at the entrances to these walks, visitors often saunter along, close to the open windows and converse with patients, sometimes gibing them and otherwise behaving improperly. Throngs of sightseers, whose ideas of mental diseases are ex-



CLEVENGER'S COTTAGE at KANKAKEE

tracted mainly from sensational novels, and are prompted by a very discreditable curiosity, troop thru the central building and expect to be admitted to the wards, in many cases stating that they wish to be shocked by the horrible sights and plainly requesting to be shown the worst cases.

Citizens should remember, he exhorted, that this is nearly the twentieth century, and that while the care of the insane has advanced to an extent that the mentally afflicted are treated as sick human beings, such behavior on the part of visitors befits better the tenth century when these unfortunates were publicly and legally flogged, and the populace gathered to deride those supposed to be possessed by devils. The institution on the banks of the Kankakee River is a hospital for the sick in mind, and not a menagerie. He pointed out that many of the patients there are in the first, and therefore most curable stage of their disorder. Then he asked the visitors to imagine how they would resent some loved one of their own being on exhibition before a miscellaneous mob, and their chances of recovery interfered with thru such idle curiosity. Thus he went on explaining, and concluded by saying that it becomes necessary to adopt the following rules: relatives and friends of patients are always wel-

come, and physicians and medico-legal students will be admitted readily, but hereafter the gates on Sunday will be closed to mere pleasure-hunters. This four-page leaflet exhibits such sympathy for the insane, and breathes such a determination to save them from insult and injury, that it reads like a chapter from the heart of PINEL.

But again CLEVINGER learnt what it means to antagonize men, and conspicuous among his opponents was the brewer RADEKE—if there were no Sunday crowds, who would buy his beer? At the state institution, as at the county asylum, the saloon-keeper loomed large. The ten years faded away in a mist. The Kankakee River ran dry, and CLEVINGER was again on the sandy plains of Dunning. The features of FREE P. MORRIS seemed to turn into the face of MIKE McDONALD, and the brewer RADEKE looked like the brutal VARNELL.

The opposition of boodlers only served to whet CLEVINGER's fighting soul. The more he prowled, the more he saw, and what he saw was not good. Bitterness increased on both sides. We might give a list of details, but it would be repetition—Dunning all over again. Perhaps CLEVINGER was not as strong as he had been; perhaps it is not hygienic to add night-work to

the labor of the day, for within a short time the superintendent overstepped the boundaries of health; he did not seek an invalid's bed, but it was a wrecked CLEVENGER that walked thru the hospital, denouncing political graft. On the third of June, at 4.15 p. m., CLEVENGER was handed this note:

Owing to the overwork of DR CLEVENGER, Superintendent of the Hospital, it is considered advisable by the Board of Trustees to give him a vacation, for recuperation, during which time the Board assumes absolute control of this institution;

Therefore, be it resolved, that Dr S. V. CLEVENGER is hereby granted a vacation of two weeks, during which time he is to be relieved from all duties pertaining to this institution, the said vacation to commence on June 3rd, 1893.

CLEVENGER went to his son's ranch at Raw Hide Buttes, Wyoming: superintendent for three months and nervous prostration, then a cattle-farm far from sin and society. During those two weeks Raw Hide Buttes saw more mail than ever before; Clevenger conducted an enormous correspondence for a man suffering from general exhaustion. He was kept informed about the hospital by a member of the medical staff, CHAP-

MAN V. DEAN, who proved a loyal and affectionate friend to CLEVINGER; Dr DEAN was a college chum of WILLIAM F. DOSE, ALTGELD's secretary, and they were still on the most cordial terms. One of DEAN's letters to CLEVINGER is worth preserving because of its pen-picture of the redoubtable RADEKE:

Summer has settled down upon us since you left; ALBERT and I went up the river the day before yesterday in a row-boat, and took our first swim in the Kankakee. Mr SILL left here about a week ago, and I haven't seen a single specimen of the 'genus trustee' since then in this vicinity. Things are running along very smoothly (that is—fairly so) under the direction of Dr 'Pegger,' who would make a very able driver for our band-wagon indeed had he but a little more confidence in himself—could he but muster up a little more moral courage and faith in his own ability, and exuviate that thick skin of Deweyism which seems to stick to him like a blanket to an Indian in winter-time. Dr EFFIE LOBDELL and I sit just at the driver's elbow, however; take good care that he keeps the middle of the road, and you may depend we see to it that whatever happens on our journey, schedule time is maintained.

I have kept DOSE fully informed of the situation here. We spent last Sunday at the World's Fair together, and I went into detail on a great many points,

and I was informed that they are only waiting at Springfield for the brewer to show his hand—to make some overt move—that shall give the governor sufficient cause and just reason to remove him.

The governor 'has it in' for RADEKE for wiring him at Champaign (after his speech to the college boys, which I enclose) to 'come up here immediately,' as his 'presence was needed;' in fact the governor told RADEKE in my presence at the supper-table that he had put him to great inconvenience, and had he known how things were he should never have come up here out of his way—there was no necessity for his visit whatever, etc., and poor RADEKE hung his head like a whipped spaniel—nearly swallowed his knife—much to the disgust of his *vis à vis*, who chanced to be Mrs ALTGELD. Dr LOBDELL told me later on: 'I placed him in the light opposite her, so she could see just what kind of a swine he really was.' For prudent forethought, commend me to the women folks.

It is nearly dinner-time now, and I must close. I hope you will enjoy your vacation and come back to us prepared to 'turn the hose on.'

At the expiration of the two weeks, CLEVENGER was ready to return to duty, but his vacation was again extended—this time without pay. The fact was this: the trustees discharged him. Governor ALTGELD now realized that CLEVENGER could not work in harmony with politicians,

and giving him \$1,000 above his salary, he let him go. It was an awful fizzle—ousted after three months, and nothing accomplished. Now he had to return to Chicago, and try to regain his former practice. So friend GIRARD was not only a major and a surgeon—but also a prophet.

Not long afterwards, half of the trustees were expelled, and the other half resigned; the next superintendent was somewhat vague about what he did with the small sum of thirty thousand dollars; and a female inmate—KITTY WARD—gave birth to the inevitable illegitimate baby. These incidents brought the Kankakee asylum a little official attention and considerable newspaper fame, and perhaps it was with a grim 'I-told-you-so,' that CLEVENGER pasted the clippings into his scrap-book.

V

DREAMING AND DRIFTING

FOR several years CLEVENGER was neurologist to a Catholic and to a Hebrew institution—the Alexian Brothers Hospital and the Michael Reese Hospital. These were small structures when they were destroyed by Chicago's great fire, but they were rebuilt in imposing style. There is a picture of CLEVENGER taken in one of the medical wards on Belden Avenue, showing the freethinking doctor in the midst of AMBROSIUS and ARCADIOUS and ALOYSIUS—disease is non-sectarian, and tic douloureux is as painful in a follower of LOYOLA as in an admirer of VOLTAIRE. Both hospitals treated the sick of all denominations, but the Alexian Brothers limited their services to males, and even the nurses were males, so Dr BYFORD never hurried there with ergot and forceps.

CLEVENGER's experiences in hospitals for sick bodies were not as unfortunate as his adventures in asylums for sick minds, but man is a natural

politician, and the best institutions may be tainted by intrigue—it is said that even the Catholic Church is not wholly free from it. At an age when most men cling tenaciously to positions, the quixotic CLEVENGER became an exile from hospitals. He ceased to be ‘physician for nervous and mental diseases to Michael Reese and Alexian Brothers Hospitals,’ and held no further hospital appointments: as a hospital official, Dr CLEVENGER was not what is called a success. However, he came out alive, which is more than can be said of certain other Chicago doctors who crossed the path of politicians—ask the ashes of THEODORE B. SACHS!

On various occasions CLEVENGER was a teacher. In 1883 he lectured on art anatomy at the Chicago Art Institute; in 1887 he lectured on physics at the Chicago College of Pharmacy; in 1899 he lectured on medical jurisprudence at the Chicago College of Law. His connexion with these institutions was transient, as was also his lectureship on electro-diagnosis at the Electro-Medical School of Chicago: the faculty was naturally expected to boost medical electricity, but as CLEVENGER was more satirical than eulogistic, he was soon thrown out.

In 1900 he was appointed professor of neurol-

ogy and psychiatry at the Harvey Medical College, 'a night-school for day-workers.' It is evident the management forgave him the trick he had played a few years previous when he was invited to speak at the inauguration exercises, and took advantage of the occasion to deliver a broadside against the political control of asylums. Perhaps the head of the institution was secretly pleased, for she was Dr FRANCES DICKINSON, a relative of SUSAN B. ANTHONY, and she possessed some of that indomitable fighter's spirit. Besides being president, Dr DICKINSON was also professor of ophthalmology. The vice-president was Dr EFFIE LOBDELL, whom we had the pleasure of meeting at Kankakee. Dr LOBDELL was quite a personage by this time, being professor of clinical obstetrics and gynecology at Harvey Medical College, chief physician and surgeon of the Playfair School for Obstetrical Nurses, and obstetrician to the Cook County Hospital and to the Mary Thompson Hospital.

Whatever may be said of the attempt to teach modern medicine by electric-light, FRANCES DICKINSON must be given credit for two things: she published one of the neatest and most circumspect of college catalogs, and she gathered around her an excellent faculty. While CLEV-

INGER was on the staff, the bland HARRIS E. SANTEE tried to smile anatomy into the students, WILLIAM D. ZOETHOUT impressed the facts of physiology upon them with Teutonic thoroness, BERNARD FANTUS explained the mysteries of the materia medica, W. O. KROHN lectured on psychology, and the unique BYRON ROBINSON taught gynecological and abdominal surgery.

Altogether there were fifty members upon the faculty, and altho we believe all were useful, we are somewhat startled to find that ALBERT SCHNEIDER was listed as Professor of Physiological and Psychological Physiognomy. From the standpoint of alliteration this position is perfect, tho Professor SCHNEIDER has since left this field for the more practical pastures of pharmacy. Professor CLEVINGER lectured to the seniors, but he formed no lasting friendships with his pupils, and when the Harvey Medical College passed out in the night, his personal fortunes were unaffected.

Several years later, CLEVINGER became connected with another night-school—the Chicago Hospital College of Medicine. This institution is almost a necropolis, for it specializes in old men who once amounted to something. The career of SAMUEL ANDERSON McWILLIAMS ex-

plains our ghoulful meaning. In his prime, McWILLIAMS taught in a Class A school—the College of Physicians and Surgeons of Chicago, and his name, as one of the founders, may still be read on the corner-stone of the building. But when his beard was whitened and his mind a trifle dimmed, he became professor in a Class B school—the Bennett Medical College; again the years made inroads upon old McWILLIAMS, and when he was no longer acceptable at Bennett he was received at a Class C school—the Chicago Hospital College of Medicine. Here he remained until his death; his career was a descent; he could look backward and see that his pupils were occupying positions from which they had crowded him out—but the aged teacher had his wish: he died a professor—thanks to the Chicago Hospital College of Medicine. On the other hand, the mercurial CLEVINGER soon severed his connexion with this college, altho for a few weeks he had held the exalted position of registrar.

But was CLEVINGER ever connected with a 'good school'? Almost. His Philadelphia friends wished him to accept the newly-established chair of biology at the University of Pennsylvania, but the professor's salary of \$500 a year

was stationary, while CLEVINGER's family was growing, so he let the honor go. Then there was talk of CLEVINGER succeeding WILLIAM FRANCIS WAUGH at the Medico-Chirurgical College, but altho Professor WAUGH eventually became a Chicagoan, CLEVINGER never became a Philadelphian. At different times, REEVES JACKSON and WILLIAM E. QUINE invited CLEVINGER to deliver courses of lectures at the College of Physicians and Surgeons, but as there was no mention of compensation, he did not accept. Every man has his own code of ethics: CLEVINGER would gladly have written an encyclopedia gratis, but it was against his principles to lecture except for cash. At one time he made plans to found a Biological School in Chicago, but was led to believe that he would be offered the chair of comparative anatomy and physiology at the University of Chicago. While waiting for the official announcement, CLEVINGER filled in the interval by delivering a Darwinistic lecture which so offended the Baptist authorities of the institution that the old University of Chicago continued its course without him. We may sum up the career of CLEVINGER as a pedagogue by saying that it was not prosperous.

In CLEVINGER's scrap-books are various clip-

Philadelphia, Pa

1925 Chestnut St

Dear Dr. Do you want paralyt-
logical nerve preparations.
I am now getting on hand quite
a supply of brain & spinal Cord -
Some of them I would like an
Opinion about - would you be
willing to exchange. If so
please answer promptly as I ~~must~~
am going out of town in 2 weeks.

Yours
H. C. Wood

July 8/84

LETTER FROM HORATIO C. WOOD

pings about the hardships that inventors have endured, and in some of his published books he relates instances of inventors who have been robbed of the fruits of their labors by shrewd and dishonest financiers. This strain of talk indicates that CLEVENGER did not make a fortune from his inventions.

Yet he had the inventor's knack. Ever since boyhood he was inventing something. A self-reeling hose cart, a rotary brush boot-blackening machine, a self-equating sun dial to give clock-time by inspection, a fac-simile telegraph, a method of measuring the pelvic capacity by means of two rubber bands and a foot of tape, a rubber strap for locating the fissure of Rolando,—these are some of his devices which are *not* on the market.

Perhaps his most practical invention was a model of the brain, useful for demonstration purposes. CLEVENGER himself thinks so little of it that he refers to it nowhere, and has not even saved a sample, but we find that some of the leading neurologists of the time were anxious to secure copies. HORATIO C. WOOD is known mainly for his work in therapeutics, but in the eighties he produced a book on nervous diseases

and taught neurology at the University of Pennsylvania. He wrote to CLEVINGER: 'Have you a cast of the convolutions of the human brain for sale? If so, please state price.' CHARLES L. DANA, the neurologist of Cornell University, wrote: 'Will you kindly inform me whether I can now get one or two of the models of the brain devised by you?' WILLIAM J. MORTON's note has an added interest on account of its reference to the distinguished HAMMOND:

Would you kindly send me whatever casts of the brain you have that you are willing to dispose of. I hope I am right in my recollection that Dr HAMMOND said you had made certain casts and that they could be bought. I should have said above, whatever separate casts, for I would like to see the simple copies first. But of the hemispheres (I have seen Dr HAMMOND's) I would like at least half a dozen for lecturing purposes in the new Post Graduate School.

I hope I may have the pleasure of receiving a paper, short or long, for the *Journal* in some of the succeeding numbers for 1883. You know how welcome to our pages a contribution from your pen will always be.

CLEVINGER did not answer by return mail, for in his next communication Dr MORTON says:

I have just finished my course of lectures on the anatomy of the brain and will not now need the casts, but I am just as much obliged for your kind information about them, and fear at the same time that you underrate their value.

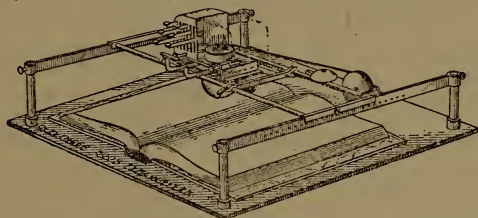
We miss your medical pen, and trust it will be soon back at its old work—some good and trenchant specimens of which the *Journal* well knows.

The *Journal* to which Dr MORTON alludes is the *Journal of Nervous and Mental Disease*, for he was now editor of JEWELL's transplanted quarterly. Unhappy MORTON! His ancestors attended Harvard University when there were only five members in a class, and they fought in the revolution from the battle of Bunker Hill until tyranny was overthrown; he was born in the glorious year in which his father gave surgical anesthesia to the world, and he won an honorable name for himself in neurology and electrotherapy, as practitioner and professor, investigator and editor, but in later days he and JULIAN HAWTHORNE got mixed up in King Solomon's mines, and the gates of a federal penitentiary closed upon these talented sons of immortal fathers. JULIAN HAWTHORNE, being an author, eased his grief in a book, but the harrowing experience broke the physician's heart.

The big invention of CLEVENGER's life was the Clevenger Book and Electric Typewriter. After looking upon the basket full of long grasshopper legs, the typebar levers, ratchets, pinions, wheels, cams, racks, cogs, springs, rods, all so clumsy and complicated, he decided that the typewriter required simplification. He studied the whole history of typewriters, from the first crude ma-

CLEVENGER BOOK TYPEWRITER

For Books, Cards, Envelopes, Letters, Documents of all kinds—ANY SIZE.



Writes on flat surface. Does more and better work than other machines.

BOOK AND ELECTRIC TYPEWRITER CO., Park Ridge, Ill.

S. V. CLEVENGER, Sec'y and Treas.

chine of Queen ANNE's time down to the majestic Remington, he waded thru all the patent office records in Washington—but nowhere did he find principles which satisfied him. At this period he expected to start a great sanitarium in Delaware, but he forgot that a sanitarium requires undivided attention. The sanitarium idea fizzled out, but he went on with his typewriter. An inventor is never discouraged—only a little

longer and all will be well. Why complain if unreasonable neighbors whisper something about a crank? Is it not the fate of all great men to be misunderstood? Did not folks laugh at Fulton's Folly—until they scrambled into his steamboat? Why lament if the purse be empty today? Only another screw to be tightened, only another wheel to be applied—and tomorrow fame and fortune will smile brightly.

The day came when CLEVINGER patented his improved book typewriter—a machine that would never get out of alignment, for its working parts were so simple that they could be covered by a small cigar box. The machine could be put on the market for a few dollars—hundreds of thousands would be sold. CLEVINGER started a company—shares of stock were ten dollars each.

He published a statement to the effect that he now intended to make a business of every aspect of this matter, and to go into the psychology of all persons and things concerned therein, so that the gentry who live by stealing the work of others will find they have no chance to absorb this typewriter. Capitalists willing to float corporations would be avoided as often unconscionable and liable to exploit stock improperly—not a drop of water would get into this stock. Who-

ever subscribes and pays for a share of stock in this company at the par value of ten dollars per share will have his interests conscientiously guarded, and would, so CLEVINGER hoped, realize a fortune from the venture. Then came the inevitable comparison: holders of ten dollar shares of telephone stock grew rich on the single share. In a vision he saw his typewriters working all over the land: cheap, easy to manipulate, indestructible.

Dreams, dreams, dreams,—frenzied faith of an old Don Quixote. Never has a human ear heard the clicking of the Clevenger typewriter. The company is not doing business, and the patent will lie in the Patent Office in Washington—until it expires.

An American does not consider his education complete until he has failed as an editor—have we not more periodicals than the rest of the world put together? CLEVINGER was an editor on various occasions. While still at Chattanooga, Tennessee, he was city editor of the *American Union*, but when that paper adopted southern principles, he founded *The Unconditional* in Harrison, Hamilton County. As we look over its four small pages, the first entirely devoted to advertisements, the third given up to jokes and cases

in chancery, the fourth exclusively occupied by sheriff sales, we wonder what was the purpose of such a newspaper, but perhaps the following letter written to CLEVINGER, in 1866, by JOHN B. BROWNLOW—editor of *The Whig* at Knoxville, and son of ‘Fighting Parson’ BROWNLOW, the Governor of Tennessee—may help to elucidate the situation:

Immediately upon seeing *The Unconditional* I ordered it to be put on my exchange list. I am very glad you are publishing a true paper in Hamilton County. The miserable hermaphrodite concern at Chattanooga deserves opposition. I wish there was a loyal paper in every county in East Tennessee to strengthen the loyal party. If governed alone by selfishness I would desire this, for if the loyal party of the state goes down, we all go down together. Nearly all the papers in the state are rebel, and this is the disadvantage we labor under. I trust you will be successful.

In spite of this wish, CLEVINGER was not successful—his subscribers were few and most of the few were in arrears—and as a result he went to Montana, and later to Dakota Territory where he became editor and half-owner of the *Press and Dakotian*. Here too we notice his penchant for

supplying jocose information, of which the following is an example:

It is estimated that over 2,000 toes were frozen last winter in Minnesota, because the girls wouldn't ask their fellows in, but kept them standing at the gate.

It may be mentioned that CLEVINGER paid \$6,000 for his half-interest and sold it for \$3,000—but that wasn't so funny.

Not only did CLEVINGER fail as an editor, but his friends failed too. In 1880 JOHN MICHELS founded *Science*, and edited it so ably that it at once became one of the leading scientific weeklies in the world. CLEVINGER's name was mentioned in the first volume a few times, and several of his contributions appeared in the second volume. MICHELS and CLEVINGER were on cordial terms, and CLEVINGER expected to write often for the journal, but MICHELS was such an admirable editor he had no time to devote to the financial management, and *Science* soon passed out of his hands.

Six years after *Science* was established, CLEVINGER had another opportunity to witness the dangers that beset an editor. For some time, B. F. UNDERWOOD and his wife SARAH, authoress of *Heroines of Freethought*, had conducted

The Index at Boston. A zinc merchant, EDWARD C. HEGELER,—one of those rich men with ideas who likes to be surrounded by intellectual people—desired to found a liberal journal in the West, and he finally induced the UNDERWOODS to abandon *The Index*, and come to Chicago. On the seventeenth of February, 1887, *The Open Court* made its appearance. It had none of the malice or the militancy that limited D. M. BENNETT's *Truth Seeker* to a certain class, but numbered among its contributors such men and women as JOHN BURROUGHS, THOMAS DAVIDSON, FELIX OSWALD, MONCURE D. CONWAY, M. M. TRUMBULL, EDMUND MONTGOMERY, FREDERICK MAY HOLLAND, E. D. COPE, LESTER F. WARD, ELIZABETH CADY STANTON, GEORGE JACOB HOLYOAKE and HYPATIA BRADLAUGH BONNER.

In the fifth number of the journal CLEVINGER saw a review of one of his own books, and after reading the two columns of intelligent praise he decided it was the best review he had seen, and he called upon the editor to express his thanks. Mr UNDERWOOD informed him that the review had been written by Dr EDMUND MONTGOMERY, who was then living in Texas.

MONTGOMERY was a Scotchman who had been

brought up in Frankfurt, where he daily saw SCHOPENHAUER pass with his poodle. He studied under HELMHOLTZ, and became acquainted with FEUERBACH and MOLESCHOTT, and with the pupils of SCHELLING, FICHTE and HEGEL. He attended various German universities, receiving his M.D. at Wurzburg. Returning to England, he had a laboratory at the Zoological Gardens, where he often met and conversed with DARWIN. MONTGOMERY had accomplished the remarkable feat of reading KANT's *Critique of Pure Reason* five times, and then wrote a book himself in German to refute KANT's theory of knowledge. His volume in English, *On the Formation of So-called Cells in Animal Bodies*, was mentioned by Sir RICHARD OWEN in the *Anatomy of Vertebrates* as 'an important contribution to the philosophy of physiology.' He busied himself with other researches which appeared in German and English technical journals, but ill-health caused him to come to Texas.

When MONTGOMERY's essay, *Is Pantheism the Legitimate Outcome of Modern Science?* was read before the Concord School of Philosophy, Boston was so astounded that such erudition could come out of Texas, that the following lines appeared in the *Boston Record*:

A Texan floored the Concord crowd,
 Sing high! and sing ho! for the great southwest;
 He sent 'em a paper to read aloud,
 And 'twas done up in style by one of their best.

The Texan he loaded his biggest gun
 With all the wise words he ever had seen,
 And he fired at long range with death-grim fun,
 And slew all the sages with his machine.

He muddled the muddlers with brain-cracking lore,
 He went in so deep that his followers were drowned,
 But he swam out himself to the telluric shore,
 And crowed in his glee o'er the earthlings around.

ENVOY.

Oh PLATO, dear PLATO, come back from the past!
 And we'll forgive all that you e'er did to vex us,
 If you'll only arrange for a colony vast
 And whisk these philosophers all off to Texas.

After MONTGOMERY's review, CLEVINGER himself became a frequent contributor to the *Open Court*, writing a plea for Volapuk and an attack on Christian Science, and various articles on psychiatry and monism. He rejoiced to find a medium where he could express certain views that he held—and he was paid for it too.

It was too good to last—trouble was coming. Mr HEGELER had a private secretary, a doctor of philosophy, PAUL CARUS. Mr HEGELER had also a daughter named MARY. After Miss MARY HEGELER became Mrs MARY CARUS, Mr HEGELER insisted that Dr CARUS be one of the editors of the *Open Court*. From the standpoint of the UNDERWOODS the request was unreasonable, since they carefully edited every line of the paper and there was not room for another blue pencil. Accordingly, they refused to move up and let CARUS sit on the editorial chair. But publisher HEGELER felt he had certain ideas to promulgate, and of course son-in-law CARUS understood these better than the strange UNDERWOODS, and as HEGELER owned the paper, the UNDERWOODS were compelled to resign. The first volume of the *Open Court* contained their salutatory and their valedictory. In touching but dignified words they bade farewell to their readers. They could not return to *The Index*, as it had been discontinued when they abandoned it; Mr UNDERWOOD was forced into some uncongenial newspaper work, and soon lapsed into obscurity. Dr CARUS immediately took charge of the *Open Court*, and has edited it with industry and ability ever since. He is well known for his

many philosophical brochures. Dr CLEVINGER wrote a little under his régime, but he was not a favorite with the new judge of the *Open Court*, and soon ceased to contribute.

There have been editors who have swayed the destinies of nations, but editorship was never profitable to CLEVINGER.

VI

BOOKS AND ESSAYS

WE have now seen what a restless and versatile man was CLEVINGER: clerk, soldier, hotel keeper, probate judge, court commissioner, revenue collector, surveyor, telegrapher, engineer, pathologist, alienist, hospital superintendent, teacher, inventor, printer and editor. But tho he tried his hand at twenty trades, yet his credo could be summed up in the noble words of LOWELL: 'I am a bookman.' His heart was in his manuscripts.

He began to write for publication while in his teens, his earliest efforts being miniature articles in the 'Scientific American' for 1859. Similar technical sketches appeared later in 'Van Nostrand's Engineering Magazine:' *Instruments of Aluminium* was written at a time when this metal was not much employed, and CLEVINGER thought its light weight would enable arcs to be made larger, and this would be an advantage in avoiding trigonometrical errors. *American Car-*

tography urged uniformity of methods in various government map-making departments. *A Rheostat for Electric Battery* appeared in the 'American Practitioner.' *Optical Appearances of Comets* was published in the 'Sidereal Messenger,' and contained his theory that comets are mere reflections from nebular masses of vast meteoric aggregations. Astronomy was one of his hobbies, as is evident from his correspondence with the star-men, particularly with the celebrated BURNHAM of Lick Observatory.

CLEVENGER's articles in 'Van Nostrand's Engineering Magazine' appeared in 1874. After an author has written a few articles, he usually feels like producing a book. Your humble article is buried among other men's writings, but a book comes into the world clothed in leather or fine cloth, with golden letters stamped across its back, and it stands upright upon the shelf. In 1874, when a United States Deputy Surveyor, CLEVENGER wrote his first book, *A Treatise on Government Surveying*, published by the Van Nostrand Company of New York. It is the only one of his works which has gone thru several editions, and from which the royalties were visible. We understand that it is still used by students and carried by engineers in the field—

perhaps because Colonel I. N. HIGBEE, one of the oldest and most competent deputy surveyors in the Union, declared he knew several contracting individuals to fail in their tasks, because they did not possess the knowledge contained in CLEVENGER's book.

The volume was dedicated to the Honorable COLUMBUS DELANO, Secretary of the Interior, 'in memory of pleasant conversations;' in his letter of acknowledgment, the Secretary wrote, 'The fame of CLEVENGER lives in the enduring marbles his genius wrought; and I trust that his son may achieve equal success as an author.'

We have read this work for the same reason that RICHARD LE GALLIENNE read GRANT ALLEN's *Force and Energy*—because a copy was presented to us; and we confess we know as much about surveying as poet RICHARD knows about physics.

It is interesting to note that even in 1874 CLEVENGER had begun his campaign against political corruption, for in the circulars advertising his book he inserted hints like these: 'There are several Surveyors-General who do not sell contracts—but they do not save \$10,000 a year from a salary of \$2,000.' 'Contractors are not always

surveyors. Why not entrust our navy to politicians'?

Five years later CLEVINGER was living in another atmosphere: he was an M.D., and spent his time at the dead-house of the county insane asylum, and in Professor JEWELL's library—the most extensive neurological library in the West. The first result of his studies was an essay on *Cerebral Topography*, which was published October, 1879, in the 'Journal of Nervous and Mental Disease.' The recent graduate must have been gratified to find an article by WEIR MITCHELL in the same issue. CLEVINGER's essay contained the names, synonyms, and localizations of various portions of the human brain, based on an examination of the English, Italian, French and German literature, and on original studies of about one hundred brains post-mortem. It was a splendid beginning—another American neurologist was born. BURT G. WILDER read CLEVINGER's contribution, and finding the description of the sulcus occipitalis longitudinalis inferior to be original, he named it *Clevenger's fissure*. Strange to say, CLEVINGER himself insists that ECKER had previously described this inferior occipital fissure, but WILDER, who of course was familiar with ECKER's writ-

ings, is our great nomenclaturist, and so *Clevenger's fissure* is found in the medical dictionaries unto this day. Thus in the year that he was granted his diploma, the name of CLEVINGER became an eponym in cerebral anatomy.

In the next number of the magazine, January, 1880, CLEVINGER reviewed BENEDIKT's *Brains of Criminals*, disagreeing with him decidedly, CLEVINGER's contention being that criminals had no special brain shape we could make out with present means any more than they had criminal peculiarities of nose, eyes, etc. BENEDIKT outlombrosed LOMBROSO in his belief in the 'born criminal,' and as he did not hesitate to announce that he found the cerebellum in criminals uncovered, it is not odd that he was attacked by rational neurologists.

For the following number, which was the April issue, CLEVINGER contributed an article on *The Sulcus of Rolando as an Index to the Intelligence of Animals*. He took the position that this fissure was farther back in an ascending scale of intelligence, as the increased size of the frontal lobe pushed it backward; also that the medulla oblongata developed more rectangularly in bimana, the increase in size of the frontal lobe pushing the entire brain backward to form this

right angle in proportion to the intelligence increase; as the basilar process accompanies this change, skulls can add this index to Camper's facial angle.

In August of this year the American Association for the Advancement of Science held its meeting at Boston, and CLEVINGER journeyed there. At this gathering he saw several notables with whose work he had long been familiar, but CLEVINGER did not come merely for the purpose of admiring others; he had a paper of his own to read, the *Plan of the Cerebro-Spinal Nervous System*, and in October it was published in JEWELL's journal. Here he suggested cerebral homologies such as the cerebellum being formed from coalesced intervertebral ganglia: the Gasserian ganglion was an intervertebral originally and other lobes in all mammals were originally developed from intervertebral ganglia, as archetypal skull shows ancestral vertebral segment plan.

Besides the 'Journal of Nervous and Mental Disease,' CLEVINGER wrote for other periodicals during 1880: he conducted a *Saturday Science Column* in the 'Chicago Tribune,' and he assisted E. C. DUDLEY in editing the first issue of the 'Chicago Medical Gazette,' later called the

'Chicago Medical Review.' DUDLEY wanted a pathologist and a surgeon on his staff, and asked CLEVINGER to hunt up a couple of good men. CLEVINGER knew a foreigner who had recently arrived in Chicago and had a reputation in pathology, and he told CHRISTIAN FINGER about the new journal, and the talented Dane agreed to write for it, tho he was probably not excited at the prospect, as he had already contributed to medical periodicals. But at the Cook County Hospital, CLEVINGER found a promising young interne, fresh from college, named MURPHY, whom he persuaded to send surgical reports to the 'Review,'—and these were Dr MURPHY's first contributions to medical journalism. But in the days when JOHN B. MURPHY became the surgical king of Chicago, CLEVINGER despised him for kneeling at an archbishop's feet to receive a knightship from the church which had persecuted science when science was weak.

With the third number, CLEVINGER became editor of the department of *Medical Physics*, but characteristically enough, soon relinquished the task. For the March 'Chicago Medical Review,' he wrote *Guide to Post-Mortem Examinations of the Brain*, and in June contributed a brief communication on *Laceration of Cervix Uteri*,

as a probable cause of recurring abortions, to which Editor DUDLEY appended this note:

The history of the lesion as given in the case-books of the Woman's Hospital in the State of New York, in the private records of Dr EMMET, and in our own records, proves the correctness of the views above expressed, altho, so far as we are aware, these views have not hitherto been specially published.

CLEVENGER contributed nothing further to gynecology, but young DUDLEY soon became professor of diseases of women in CLEVENGER's alma mater, and developed into Chicago's master-gynecologist: for years his skill has corrected the mistakes of nature and the blunders of lesser surgeons.

The November 'Chicago Medical Journal and Examiner,'—an important publication which had been founded in 1844 and was now edited by DAVIS, HYDE and BROWER,—contained CLEVENGER's *Cerebral Anatomy Simplified*. Furthermore, during the year he had read the first results of his research work on the mercurials, to the Chicago Biological Society and to the Illinois State Microscopical Society. Altogether, 1880 was a fruitful year, and CLEVENGER acquired 'standing.'

During 1881 there were not many days during which the pen of Clevenger was dry. He wrote up his further researches with mercury, contributed *Comparative Neurology* to the January-February 'American Naturalist,' edited by EDWARD DRINKER COPE, and the July issue contained his lecture on the *Origin and Descent of the Human Brain*, showing the development of lobes from ganglia formed on back of spinal cord. This address had been read in February before the Chicago Academy of Sciences.

On March 11, 1881, he spoke on *Nerve Cells and Their Function* before the Illinois State Microscopical Society, and made it the subject of his American Neurological Association thesis. It appeared in abstract in the 'Chicago Medical Review,' but to CLEVINGER's chagrin, was full of typographical errors. However, such accidents are liable to occur in the best-conducted printer-ies. No doubt the proofreaders of the Bible are conscientious men, and yet one edition appeared in London with the 'not' omitted from the seventh commandment. In this paper he advanced his histogenetic nerve-cell theory, claiming that the nerve-fibre and not the nerve-cell is the first to arise in forms above the protozoa, for in notochordal animals an elaborate system of nerves

exists without a nerve-cell being present. He took the ground that histogenesis was the main function of the nerve-cell, the axis cylinder being produced from the cell.

His paper, *Schmidt on Yellow Fever*, which he read in April before the Chicago Biological Society, appeared in the May 'Chicago Medical Journal and Examiner.' H. D. SCHMIDT of New Orleans was crippled with rheumatoid arthritis, but when it settled in his lower limbs and left his hands free, he was a master of minute injections, and could make sections and drawings that won the admiration of men like NOTT, LEIDY, JEWELL, HAMMOND, SPITZKA, ROSWELL PARK, LESTER CURTIS and E. C. SEGUIN. Poor SCHMIDT! he announced his discovery of the biliary capillaries as the commencement of the hepatic duct, in the 'American Journal of Medical Sciences,' a generation before CLEVINGER thought of studying medicine, and now CLEVINGER was trying to push his books, so SCHMIDT would have a few dollars for himself and family. SCHMIDT's work on the histology of the human liver, on the origin and development of the colored blood corpuscles in man, on the construction of the double-bordered nerve fibre, on the development of

the smaller vessels in the human embryo, on the structure and function of the ganglionic bodies of the cerebro-spinal axis, on the pathological anatomy of leprosy, and his microtome and injector, placed him in the forefront of American microscopists, and much of his work was published in England by the Royal Microscopical Society of London. His masterpiece, however, was his work on the *Pathology and Treatment of Yellow Fever*—but the sting of a mosquito antiquated the labors of a life-time.

More trouble was in store for the unhappy SCHMIDT: a year after CLEVINGER's eulogy, KOCH proclaimed his discovery of the tubercle bacillus, but in America 'Koch's bugs' excited more skepticism than enthusiasm—read GEORGE F. SHRADY's editorial of unbelief in the 'Medical Record.' And SCHMIDT, in the 'Chicago Medical Journal and Examiner' had the audacity to state that what KOCH imagined were bacilli were only crystals. In this year DARWIN passed away, but his mantle of gentleness did not descend upon KOCH. In scathing terms KOCH—who had all the truth on his side—answered his American critics, and was especially ironical with SCHMIDT. The tone of his reply is indicated in these lines:

SCHMIDT however is considered in America to be a great microscopist, and what SCHMIDT does not see no one else can possibly see. It could, therefore, be no bacilli that the European microscopists saw. The point then is to discover what sort of things they are. This, too, the great microscopist SCHMIDT very soon discovered. They are fat crystals, of course.

But every scientist has his 'cupboard of mistakes,'—whether he acknowledges it or not. Ten years later KOCH himself published certain statements which time has not upheld. As for SCHMIDT, we can write his epitaph in a few words: applauded by scientists and neglected by society, he acquired knowledge instead of money, and died without being able to pay his own funeral expenses. He was a beggar with an international reputation.

Some writers adopt the policy of praising everyone, and as everyone likes to be praised, it is a policy that pays. But CLEVINGER was more of a 'knocker' than a 'booster.' Toward the end of the year, in his vice-presidential address before the Chicago Electrical Society, on *Medical Electricity*, which appeared in the November 'Chicago Medical Journal and Examiner,' he denounced contemporary electrotherapy—somewhat as pharmacotherapy is arraigned today.

G. M. BEARD and A. D. ROCKWELL had published a large book on the subject, which CLEVENGER singled out for attack, tho he put all the blame on BEARD, whom he called an 'educated quack,' and accused of 'voluminous nonsense,' and of 'show, pretense, glitter, and owliness,' while he explained that 'the junior partner of the firm became disgusted with the trickiness of the senior, and dissolved the partnership.' BEARD—famous for his discovery of neurasthenia—made no reply, but ROCKWELL did not desire CLEVENGER's exemption, and publicly denied that he had any falling out with BEARD. REGINALD HEBER FITZ, while thanking CLEVENGER for a reprint, explained that he had begun a thankless task if he intended rapidly to reform the profession and that most Bostonians had renounced the public calling of names, as personal abuse never dignifies the profession of medicine. Dr FITZ added that he took the liberty of making this criticism from the interest he had in CLEVENGER's progress and from the somewhat confidential relation in which CLEVENGER placed him early in his medical career.

On the other hand, SPITZKA approved of CLEVENGER's animadversions—because he was not a Bostonian, and because he agreed with what

CLEVENGER had written. It seems, however, that CLEVENGER was a trifle hasty with his hammer, for within a decade he himself announced a possible electrical treatment for cholera.

In this year CLEVENGER became a contributor to JOHN MICHEL's 'Science,' his first article being his deduction that love is hunger: he pointed out that as monads eat each other and then fission reproduction occurs, this may be extended to all animal life as indicating that the sexual act is an expression of hunger and that love is derived from hunger. Naturally, this theory of the common origin and fusion of the sexual and ingestive act, with the demonstration that in some forms of life the sexual act is identical with eating, attracted considerable attention. We may add that in the light of this theory, the common expression of lovers, 'you look sweet enough to eat,' becomes comprehensible.

To 'Science,' CLEVENGER contributed also his theory that the thymus and thyroid are rudimentary gills. If this is true it might throw some light on the perplexing subject of goitre, but alas! CLEVENGER never exhibited any interest in proving his theories. He was most assiduous in hatching them, but neglected them as soon as they came into the world. We doubt if many

scientists during 1881 threw so many brilliant and unproved hypotheses into the field as SHOBAL VAIL CLEVINGER.

In the following year CLEVINGER's name appeared seldom in print, but he was preparing several of the articles which were published in 1883—the Dunning year. A complete bibliography of his writings up to this date, and a complimentary notice of the author, appeared in the July 'Chicago Medical Journal and Examiner.' This was inserted by JAMES NEVINS HYDE, the well-known professor of dermatology at Rush Medical College; DAVIS was no longer one of the editors, as he was now editing the first volume of the 'Journal of the American Medical Association.'

That CLEVINGER already ranked with the leaders of the profession is apparent from a notice which appeared in the 'American Journal of Neurology and Psychiatry,' a quarterly edited by EDWARD CHARLES SPITZKA, LANGDON CARTER GRAY, and T. A. McBRIDE. In discussing their prospects for the coming year, the editors stated:

In addition, our well-known contributors, S. WEIR MITCHELL, J. S. JEWELL, ROBERTS BARTHOLOW, S. V. CLEVINGER, J. G. KIERNAN, H. M. BANNISTER, V. P. GIBNEY, D. R. BROWER, BURT G. WILDER and nu-

merous others, will continue to favor us with the results of their researches from time to time.

CLEVENGER contributed twice to the 'American Journal of Neurology and Psychiatry' during 1883: a report on the *Recent Appearances Observed Post Mortem in a Case of Delirium Grave*, in August, and *Insanity in Children*, in November.

The year 1884 opened auspiciously for CLEVENGER, for the January 'American Naturalist' contained his *Disadvantages of the Upright Position*. He had read it before the University Club of Chicago in 1882, and before the Philadelphia Academy of Natural Sciences in 1883. The distribution of valves in the veins had long been a standard puzzle, and CLEVENGER was one of those who determined to solve it. It was plain enough, from the teleological standpoint, why we should have valves in the veins of the arms and legs: obviously to assist the return of blood to the heart against gravitation. But what earthly use, wondered CLEVENGER, has a man for valves in the intercostal veins which carry blood almost horizontally backward to the azygos veins? When recumbent, these veins are an actual detriment to the free flow of blood. The inferior thyroid veins which drop their blood

into the innominate are obstructed by valves at their junction. Two pairs of valves are situated in the external jugular and another pair in the internal jugular, but in recognition of their uselessness they do not prevent regurgitation of blood nor liquids from passing upwards. Furthermore, valves are absent from the parts where they are most needed, such as in the venæ cavæ, spinal, iliac, hemorrhoidal and portal.

Who could answer this riddle? Not any of the standard text-books of the time, but the light came to CLEVINGER. He placed man upon 'all fours,' and the law governing the presence and absence of valves became at once apparent: dor-sad veins are valved; cephalad, ventrad and caudad veins have no valves. This discovery represents CLEVINGER's most important contribution to science. It was another fact for Darwinism.

CLEVINGER explained that valves would be out of place in the hemorrhoidal veins of quadrupeds, but to their absence in man many a life has been and will be sacrificed, to say nothing of the discomfort and distress occasioned by the engorgement known as piles, which the presence of valves in these veins would obviate. Besides the law of valved and unvalved veins, CLEVINGER

exposed other drawbacks of the upright position:

He pointed out that a noticeable departure from the rule obtaining in the vascular system of mammalia also occurs in the exposed situation of the femoral artery in man. The arteries lie deeper than the veins or are otherwise protected for the purpose, the teleologists would argue, of preventing hemorrhage by superficial cuts. From the evolutionary standpoint it would appear that only animals with deeply-placed arteries would survive and transmit their peculiarities to their offspring, as the ordinary abrasions to which all animals are subject, together with their fierce onslaughts upon one another, would tend to kill off animals with superficially located arteries. But when man assumed the upright posture, the femoral artery, instead of being placed out of reach on the inner part of the thigh, became exposed, and were it not that this defect is nearly fully atoned for by his ability to protect the exposed artery in ways the brute could not, he too would have become extinct. Even as it is, this aberration is a fruitful cause of trouble and death.

CLEVENGER next pointed out that another disadvantage which occurs in the upright position

of man is his greater liability to inguinal hernia: Quadrupeds have the main weight of abdominal viscera supported by ribs and strong pectoral and abdominal muscles. The weakest part of the latter group of muscles is in the region of Poupart's ligament, above the groin. Inguinal hernia is rare in other vertebrates because this weak part is relieved of the visceral stress, but about twenty per cent of the human family are hernia sufferers, and strangulated hernia frequently occasions death.

He then showed the obstetric peril of standing erect: From marsupialia to lemuridæ the box-shape pelvis persists, but with the wedge-shape induced in man a remarkable phenomenon also occurs in the increased size of the fetal head in disproportion to the contraction of the pelvic outlet. While the marsupial head is about one-sixth the size of the smallest part of the parturient bony canal, the moment we pass to erect animals the greater relative increase is there in the cranial size with coexisting decrease in the area of the outlet. This altered condition of things has caused the death of millions of otherwise perfectly healthy and well-formed mothers and children. If we are to believe, continued CLEVENGER, that for our original sin the pangs of

labor at term were increased, and also believe in the disproportionate contraction of the pelvic space being an efficient cause of the same difficulties of parturition, the logical inference is inevitable that man's original sin consisted in his getting upon his hind legs.

CLEVENGER's star-essay brought him a suggestive letter from Lawrence University—now reduced to Lawrence College—of Appleton, Wisconsin, written by a FRANK CRAMER who is unknown to us, but who brings upon the scene the geologist and evolutionist LE CONTE, one of the most distinguished of American naturalists:

In a recent correspondence with Prof. JOSEPH LE CONTE, he called my attention to the demonstrative argument for evolution that may be drawn from the distribution of the valves in the veins of the human body; and said he thought the point was first brought out by Dr CLEVENGER.

I have been seeking a number of typical cases of biological investigations that will demonstrate the power of the theory of evolution to direct the investigator, or in other words, to give him the ability to foresee what ought to be looked for and what will probably be found. Investigators are now largely occupied in following out the suggestions of the theory and verifying the deductions that flow from it, but while every

new discovery nowadays strengthens the theory, I do not know of any effort to bring together those that were foreseen as deductions of the theory, as JEVONS has so beautifully done for some of the other sciences.

A good type of the kind of discovery to which I refer is given by some of EHRENBURG's work. From a knowledge of the structure of the carpus in other animals arose the deduction that if the theory of man's descent was the true one, the os centrale or some trace of it ought to be found in the wrist of the human embryo. Following this deduction, he made the investigation and found what he looked for; and WIEDERSHEIM pronounces it one of the greatest triumphs of the theory in the whole field of morphology.

If it will not be too great an annoyance to you, will you please give me the order in which the facts and deduction came to you? Did the theory suggest search for the facts? or did you know the facts first and afterwards connect them with the theory? Or did parts of the facts and the theory together lead you to the deduction and its verification by farther research?

What I desire, as you will readily see, is the logical relation which the facts and the theory bore to each other in your own mind.

A reply directly from you will put me under lasting obligations, and I shall await it with great interest.

CLEVENGER believed that the *Disadvantages of the Upright Position*, when originally deliv-

ered before the University Club of Chicago, had the additional disadvantage of costing him the proffered chair of comparative anatomy and physiology at the University of Chicago. To the printed essay he appended a foot-note, directing attention to the institution's antagonism to Darwinism, flaying it as a tottering university—a type of the school which was responsible for Eastern colleges being filled with Western youth—and calmly predicting that it would be five hundred years before abstract science could be supported in Chicago.

EDSON S. BASTIN, who was the professor of botany, but incidentally filled all the other scientific chairs in the University of Chicago, may not have cared to prophesy five hundred years ahead, but he could testify that abstract science in Chicago was not supporting him in the year 1884, for he was then engaged in suing the university for his salary. He wrote to CLEVENGER, who was then pathologist at Dunning:

I notice the January 'Naturalist' has your *Disadvantages of the Upright Position*, with a blast that will awaken the sleepers, in the form of a foot-note at the end. President ANDERSON will doubtless think hard of me if the article meets his eye, but since Dr GARRISON and I have declared war on the institution by bringing

suit against it for back pay, your statements will only add zest to the contest. I have suffered enough injustice at the hands of that institution, and I think no harm will now be done if one great Baptist bubble be pricked. This *sub rosa*, however.

I congratulate you on your valuable article, and thank you personally for the kindly mention you have made of me.

I am sorry I so seldom meet you this year. I very much miss the pleasant talks we were accustomed to have together. Do call on me when you come into the city.

In the same month in which the *Disadvantages* appeared in the 'American Naturalist,' CLEVENGER's *Paretic Dementia in Females* appeared in the 'Alienist and Neurologist,' the quarterly founded and so long edited by CHARLES HAMILTON HUGHES, of St Louis. In this volume of the 'Alienist and Neurologist,' M. J. MADIGAN published a lengthy treatise on *Was Guiteau Insane?* He answered the question in the affirmative, and in summing up the most eminent neurologists, in America and abroad, who adopted a similar view, he included the name of CLEVENGER.

In February, in the 'Chicago Medical Journal and Examiner,' CLEVENGER began a series of *Clinical and Pathological Reports of Cases of*

Insanity, taken from his records at Dunning. The first case he reported was that of a Swede who was suffering from melancholia due to lead poisoning. CLEVENGER ended his remarks with the suggestion, 'Sanitary boards would do well to examine into the conduct of lead factories, and insist upon proper measures being adopted to protect workmen against plumbic toxemia.' Thirty-five years have passed since these words were written, but the slaughter is still unabated. On the battlefields, lead kills men in time of war, but in the industries, lead kills men—and women—during war and peace alike.

In the April report, he used the word *paranoia*—the first time that this now-familiar term was employed on this side of the Atlantic. This paper contained his deduction that females largely inherit their insanity, while males largely acquire theirs. We quote CLEVENGER's original reference to paranoia:

In former clinical reports I mentioned monomania as a misnomer, and suggested that a name conveying the idea of logical perversion would be more appropriate for this disorder. Since then I have encountered the term *paranoia*, as used by GIUSEPPE AMADEI and SILVIO TONNINI, for this form of insanity, in the November, 1883, leading article of the 'Archivio Italiano per le



CHARLES HAMILTON HUGHES

Malattie Nervose e Alienazioni Mentali,' the organ of the Italian Società Freniatria, and in the expectation that it will come into general use instead of the word which has caused so much misunderstanding, have adopted it.

CLEVENGER concluded this strenuous year with a monograph on *Nervous and Mental Physics*, in the August and November 'American Journal of Neurology and Psychiatry.'

The outstanding event of 1885 was the appearance of CLEVENGER's second book, *Comparative Physiology and Psychology*, published by Jansen, McClurg & Company, of Chicago. This thoughtful and technical production was arranged for the printer during the turmoil at the Dunning Asylum, tho most of the ideas were taken from his earlier writings. Like the true monist that he was, he affirmed that mind must be regarded as a mechanism and that an admission of the supernatural ends investigation. Starting with the immortal ameba, he traced objectively the evolution of the human brain. CLEVENGER's *Comparative Physiology and Psychology* is a book unmarred by a superstition; theology has no place here, teleology is flouted, and metaphysics is defined as 'lunar politics;' the

spirit of science is evoked in these pages: the author lived among MIKE McDONALD's henchmen when he prepared this volume for the press, but he stood where ERNEST HAECKEL stands, breathing the air of unadulterated rationalism.

In January, 1886, he contributed *Neurological Notes*, from the Alexian Brothers Hospital, to the 'Western Medical Reporter.' In February, his *Contribution to Neurological Therapeutics* appeared in the 'Journal of Nervous and Mental Disease.' This paper was a plea for the employment of *secale cornutum* in neurology; even in epilepsy, he preferred ergot to the bromides. As a rule, CLEVENGER named the bromides only to condemn them—in which respect he differed from BEARD who declared the bromides a specific ranking with opium, quinine and electricity. JEWELL had been unable to make his 'Journal of Nervous and Mental Disease,' pay expenses, and it was edited by W. J. MORTON from 1882 to 1885, but was now piloted by BERNARD SACHS, under whose direction it was transformed from a quarterly to a monthly.

The 'Journal of the American Medical Association,' founded in 1883, was edited by NATHAN SMITH DAVIS, who had left the 'Chicago Medical Journal and Examiner' for that purpose; in the

second volume, CLEVINGER's name appeared among the editorial items:

Dr CLEVINGER, of this city, suggests as a ready means of ascertaining the existence and locations of small abrasions, needing a touch of the caustic before holding a post-mortem examination, the holding of the hands over strong aqua ammonia for a moment, when the smarting will quickly reveal all the sensitive or abraded places, however minute.

There were further references to him in this periodical, but his first contribution to the 'Journal of the American Medical Association' occurred during 1887, when his *Jurisprudence of Nervous and Mental Disease*, which he had read before the jurisprudence section of the American Medical Association, appeared in the November issue.

The 'American Naturalist' of July, 1888, contained CLEVINGER's *Cerebrology and the possible something in Phrenology*, explaining the few truths in old phrenology and the reasons for cerebrology taking the place of fallacious skull reading. In 1873 CLEVINGER had paid twenty-five dollars to the self-styled Professor O. S. FOWLER, for a phrenological reading, which is still preserved. Fifteen years later, the scientific CLEV-

INGER returned a fitting answer to this ignorant and pretentious charlatan who was never brought to justice.

In 1886, the 'American Lithographer' had published the lectures which CLEVINGER delivered at the Chicago Academy of Fine Arts, in the capacity of instructor of artistic anatomy. This series of discourses is interesting as an attempt to bring the evolutionary doctrine into the art student's domain, and the class certainly heard more of DARWIN and SPENCER than of RAPHAEL and JOSHUA REYNOLDS. CLEVINGER endeavored to show the relationship that exists between science and the arts, and he pointed out certain errors that famous artists made because of their unfamiliarity with anatomy and physics. It was characteristic of the man that he terminated his course with an adjuration to drop the outworn Joves and Venuses, and represent modern conditions. Like an exhortation from KROPOTKIN's fiery pamphlet, *An Appeal to the Young*, is CLEVINGER's concluding paragraph:

There exist prison brutalities for you to expose. CHARLES READE attempted this in *Never Too Late to Mend*, and in his *Hard Cash* he gave accounts of insane asylum atrocities. Such works as his and CHARLES DICKENS' tales of Dotheboys Hall have done some-

thing toward instituting reforms, but there is still an immense amount of labor to be done. I have been personally made aware of the hideous management of county insane asylums by bar-keeper politicians, and believe that were the artist to bring the real state of things to public view the appeal to humanity would be more effective than thru rhetoric or 'investigations' intended to exculpate the offender and hide the truth.

After this series had been printed in the magazine, arrangements were made to bring it out in book-form, under the title, *Lectures on Artistic Anatomy*. Illustrations were secured, and the pages were electrotyped. Most appropriately the volume was consecrated to the memory of his father, and the dedicatory page quoted the beautiful lines that Boston's uncrowned ruler, EDWARD EVERETT, addressed to the sculptor on receiving the bust for which he had sat:

Time, care and sickness bend the frame
Back to the dust from whence it came;
The blooming cheek, the sparkling eye
In mournful ruins soon must lie;
The pride of form, the charm of grace
Must fade away, nor leave a trace.

They shall not fade; for Art can raise
A counterpart that ne'er decays:

Time, care and sickness strive in vain
The power of genius to restrain.

Thou, CLEVANGER, from lifeless clay
Canst mould what ne'er shall fade away,
Fashion in stone that cannot die,
The breathing lip, the speaking eye;
And while frail nature sinks to dust,
Create the all but living bust.

Everything seemed in readiness for the publication, but certain parties concerned in the venture were guilty of delay, and this dilatoriness caused others to retreat, and the plates were sent to another publisher, and then to still another who kept them a twelvemonth, and finally shipped them to a firm in Chicago where they were burnt in 1888 in a printing-house fire. So nothing now remains of the work except a solitary dummy bound in boards, and we are justified in claiming that the *Lectures on Artistic Anatomy* is one of the rarest volumes in the world.

But CLEVANGER was already roaming in fields far removed from the Chicago Art Institute. He was a student of railways—he was studying those vague and ambiguous injuries to the nervous system, often received in railway accidents,

in which the anatomical changes in the spinal column are either absent, indefinite, or undemonstrable, but which leave the victim a neurasthenic wreck. The 'railway spine' had been discovered in England by JOHN ERIC ERICHSEN, who was born in Copenhagen—and certain Englishmen heartily wished he had remained in his native land, whether there is something rotten in Denmark or not. But ERICHSEN matriculated at the University College of London, and eventually became professor in that institution,—where he taught LISTER—winning much admiration by his lectures and clinical work. He was president of the College of Surgeons, and of the Royal Medical and Chirurgical Society, and after being surgeon-extraordinary to Queen VICTORIA, was created a baronet. His *Science and Art of Surgery* passed thru several editions, and ERICHSEN is counted among the makers of modern surgery.

His *Concussion of the Spine* made his name a storm-center, as the corporations naturally took the ground that the owners of the railway spine were simply shamming. HERBERT W. PAGE wrote a volume to prove that the railway spine was a myth, but the enormous sums which English juries awarded the plaintiffs were exceed-

ingly substantial, and involved the opposing physicians in the bitterest acrimony. Eleven million dollars in damages, within five years, for a new disease, cannot be doled out with a smile.

The warfare extended across the Atlantic, and in the eighties SPITZKA wrote on *Spinal Injuries as a Basis of Litigation*, and J. J. PUTNAM and G. L. WALTON pointed out the hysterical nature of the malady. CLEVINGER then attacked the problem; moderation was never his middle name, and he became ERICHSEN's warmest advocate. In 1889, the F. A. Davis Company of Philadelphia, brought out CLEVINGER's *Spinal Concussion*, 'surgically considered as a cause of spinal injury, and neurologically restricted to a certain symptom group, for which is suggested the designation *Erichsen's disease*, as one form of the traumatic neuroses,'—this being the first time that concussion of the spine was called Erichsen's disease.

Clevenger reviewed and analysed the available literature on the subject, and then worked out his own theory that injury to the sympathetic nerve fibrils between the spinal cord and anterior sympathetic spinal ganglia accounted for much of the phenomena in this traumatic neurosis.

To find concussion of the spine regarded as a

clinical entity, and his own name eponymic, was naturally agreeable to Sir JOHN ERIC ERICHSEN, and he sent CLEVINGER this cordial letter:

Pray accept my best thanks for the copy of your work on *Spinal Concussion* which I have just received from your publishers. The subject seems to be most admirably and exhaustively treated by you.

I assure you that I feel much gratified and very highly flattered by having my name appended by you to the group of symptoms—so very characteristic and unmistakable when taken in the concrete—which I believe I was the first to describe, which results from that peculiar form of spinal injury now recognized under the term of ‘Spinal Concussion.’

Nearly a quarter of a century has passed since I first wrote on the subject, and it is a matter of sincere gratification to me to find that the views I then entertained, and the opinions I gave utterance to, have in great measure been accepted by such distinguished neurologists as yourself, ERB and others.

Altho the mere phrase, ‘spinal concussion,’ was provocative of ire, CLEVINGER aroused a little extra animosity by such cogitations as the following:

It is sad to reflect, however, that the majority of medical men in our country have never seen a human

spinal cord and would not recognize one if they did see it.

CLEVENGER's *Spinal Concussion* was the signal for a renewal of the battle: followers rallied to his defence and pronounced his theory the most plausible that had yet appeared, while it was the vociferous contention of his opponents that *Erichsen's disease* should be named 'blackmailer's disease,' as the litigants were speedily cured upon receipt of damages.

The spread of periodical literature in the nineteenth century put an end to the importance of the pamphlet, but 'railway spine' had its pamphleteer in Dr G. M. DEWEY, of Keytesville, Missouri. From his eight-page lampoon we cite these passages:

A new disease to trouble men
Has come to light thru ERICHSEN;
Who ever heard, before his time,
Of such complaint as 'railway spine'?
It was the purpose of the Lord
To save from harm the spinal cord.
Protection for the cord was made
Before a railway track was laid.
Enclosed within a solid case,
It seemed secure for all the race;

I first wrote on this
subject. And it is a matter
of sincere gratification to
me to find that the
views I there entertained
and the opinions I gave
utterance to have been
near measure less
accepted by such distin-
guished Physiologists
as Gurney, Erb & others
believe me to be Dear Sir
Yours truly
John Eric Erichsen

LETTER FROM JOHN ERIC ERICHSEN

A bony process on each side,
No evil from it could betide;
An osseous column from behind
In close proximity we find;
In front a solid fort we see
The bodies of the vertebræ;
To make the cord still more secure,
From shock and violence insure,
The spine was made of many cones,
With cartilage between the bones;
A great success this would have been,
But for JOHN ERIC ERICHSEN;
But ever since he wrote his book,
The spinal cord is getting shook,
And scarce a term of court goes by,
That does not have a case to try.
The slightest bruise, the merest jar,
If gotten on a railway car,
Is sure to end in course of time
In a concussion of the spine. . . .

There seems to be an inclination
In men to rob a corporation.
So common is this thing of late
That stealing seems legitimate. . . .
The damage by the jury set,
Attorneys half the boodle get. . . .
No ante, or postmortem sign,
Can diagnose a 'railway spine;'

The microscope is sought in vain
The dubious symptoms to explain;
Subjective signs, if signs at all—
An open door for fraud for all.
Away with fairness, truth and skill,
While men malingering at their will.
What can be done, what can avail,
In shock from the pernicious rail?
Of antiseptics, none are sure
To even make a transient cure;
Nerve tonics, very often tried,
Failing, have all been laid aside;
Neurosthenics without name,
Have not relieved a single pain;
The iodides, when in some doubt,
Will often help a doctor out;
Have not, up to the present time,
Relieved a case of 'railway spine';
One remedy that never fails,
In shocks from the pernicious rails;
In all conditions it is sure
To make a quick, a speedy cure;
Specifics may be flaunted at,
And much of charlatanry smack;
But greenbacks have not failed thus far
To heal the direct railway jar.

Of late there's sprung some Western men
Who may eclipse JOHN ERICHSEN;

Chicago has produced a man
Who now stands foremost in the van;
CLEVINGER has at last found out
The great morbid cause, no doubt;
While on the gentle sleeper rocked,
The sympathetic nerve gets shocked;
He puts this theory in his book,
Where all may see it if they look;
And every pain that flesh is heir
Is put down as a symptom there.
The book was writ beyond a doubt
To help the rascal plaintiffs out.
The writer seems in quite a rage
To counteract the views of PAGE;
The only thing he claims as new
Is the great sympathetic view.
The ganglions spend all their time
In getting up a 'railway spine';
Since this new function they have got,
Against the cord they daily plot.
These writers on the record go
For what they think, not what they know. . . .
The cord was safe up to the time
JOHN ERIC made the 'railway spine';
Now every day some fellows get
Their sympathetic nerves upset,
And to the law in haste appeal,
Where juries will condone the steal.

The 'Alienist and Neurologist,' for July, 1890, contained CLEVINGER's *Infant Prodigy*, the story of OSCAR MOORE, of Waco, Texas. OSCAR was a mulatto, blind from birth, and while still in his cradle he corrected his elder brothers and sisters who stumbled over the multiplication-table. As BRANN the Iconoclast also hailed from Waco, little OSCAR could not claim to be the only phenomenon that came out of that town, but he was wellworth scientific attention. When he came under CLEVINGER's notice in Chicago, he was three years old, and already had a marvelous stock of information—enough to fill a handbook; whatever he heard he remembered, whether it was the population of American cities, a speech on the tariff, or a prayer in Chinese. He could recite poems in various languages, and could repeat an astonishing array of statistics. CLEVINGER exhibited him in the Central Music Hall, and as the sightless colored child stood on the platform in his golden cage, answering question after question which the assembled physicians asked him, he was indeed an enigma. At the request of HENRY M. LYMAN, the professor of neurology, CLEVINGER exhibited his prodigy to the students of the Rush Medical College. GOULD and PYLE quote CLEVINGER's *Infant*

Prodigy in their volume of endless fascination, *Anomalies and Curiosities of Medicine*. Unfortunately, OSCAR did not survive childhood. In October, CLEVINGER had another article in the 'Alienist and Neurologist,' on *Heart Disease in Insanity and a Case of Panphobia*.

During this year the American Medical Association met at Nashville, Tennessee, and CLEVINGER was one of the participants, but was probably more interested in revisiting the scenes of his old army days than in attending the meetings: he found that the barracks which he had used for his recruits had become an hotel, and the fort on the hill was displaced by Fisk University, but when a native spoke to him, CLEVINGER heard that the Dixie dialect was still unchanged. At the jurisprudence section, CLEVINGER did some propaganda work by reading a paper on *Erichsen's Disease as a Form of the Traumatic Neuroses*. His views were tartly attacked by HERBERT JUDD and CLARKE GAPEN, but he was amply defended by HAROLD N. MOYER and JAMES G. KIERNAN, while Professor LYDSTON declared, 'CLEVINGER's explanation of the pathology of the varying phenomena of spinal concussion is thus far the only rational and intelligible one in medical literature.' CLEVINGER's

paper appeared as the leading article in both the 'Journal of the American Medical Association,' and in the 'Boston Medical and Surgical Journal.'

But by 1890, CLEVINGER's research work was over, and he began to write various brief and ephemeral articles for the general medical press; the 'Medical Standard,' whose editors have always been anonymous, received some of these; his *Inebriety Notes* ran thru three issues of T. D. CROTHERS' 'Quarterly Journal of Inebriety;' he wrote *Physics in a Pharmacy Course* for the 'Western Druggist,' and contributed copiously to the Philadelphia weekly, 'The Times and Register,' which had formerly been conducted by HORATIO C. WOOD, and was now under the editorship of WILLIAM FRANCIS WAUGH. DR. WAUGH was a pupil of SAMUEL DAVID GROSS, but developed into an internist instead of a surgeon; he was a founder of the Medico-Chirurgical College, and its first professor of medicine; in an era of therapeutic doubt, WAUGH had a positive faith in drugs—sometimes more positive than scientific. He was a forward-looking physician, and one of the best editorial writers in the profession—which is perhaps a half-hearted compliment, since nearly all our editorial writers

are utterly execrable. WAUGH originated certain intestinal antiseptics and astringents for fermentative diarrhea, such as the sulphocarbolate of zinc, that CLEVINGER applauded as unequalled, but CLEVINGER regarded WAUGH's later connexion with the Abbott Alkaloidal Company as unfortunate—for WAUGH. CLEVINGER and WAUGH were kindred spirits, and there was a sympathetic understanding between the two men.

In WAUGH's journal he published his *Address to the Chicago Academy of Medicine*; it is a compendium of muckraking, and in showing that science and politics make a monstrous combination, CLEVINGER wandered as far afield as paleontology: 'Professor COPE,' he asserted, 'has shown that the official geological surveys are debauched by pseudo-scientists who publish great volumes of falsehoods at the government's expense; and recent exposures have damned official American paleontology for all time in necessitating the rewriting of text-books that assumed the alleged discoveries as true.' This was a slap at Professor MARSH, of Yale, whom, however, he does not name. There are those who say that OTHNIEL CHARLES MARSH had few peers as a paleontologist, but we need not advance our own



William F. Vaughn, A. M., D. D.

opinion, since it has become the fashion to refer all paleontological problems to HENRY FAIRFIELD OSBORN.

This address had been delivered at the organization meeting of the Academy, CLEVENGER being one of its founders and its first secretary. How much such a society was desired in Chicago is evidenced by the fact that the foremost physicians and surgeons of the city became Fellows, and either read papers at the monthly meetings or took part in the discussions. Among its Active Fellows were NICHOLAS SENN, JOHN B. MURPHY, JOHN RIDLON, WILLIAM AUGUSTUS EVANS, LUDWIG HEKTOEN, HENRY GRADLE, W. S. CHRISTOPHER, CASEY A. WOOD, DANIEL R. BROWER, JAMES G. KIERNAN, HENRY M. BANNISTER, E. C. DUDLEY, G. F. LYDSTON, EUGENE S. TALBOT, ARTHUR DEAN BEVAN, WILLIAM ALLEN PUSEY, HUGH T. PATRICK, WILLIAM FRANCIS WAUGH, when he became a Chicagoan, and HARRIET ALEXANDER, who must have been a learned woman, since KIERNAN quoted her so frequently. But altho the Chicago Academy of Medicine officially professed to be modeled after the New York Academy of Medicine, within a comparatively few years it ceased to exist. In simple language Truthful James

of Table Mountain explained what broke up the proceedings of the scientific society upon the Stanislau, but we have never been able to ascertain what caused the Chicago Academy of Medicine to disband—perhaps because Dr KIERNAN quoted Dr HARRIET too often.

In 1891, CLEVINGER continued his miscellanea: he wrote for the 'Western Medical Reporter,' the 'North American Practitioner,' and began *Psychological Studies of Physicians* for the 'Medical Progress' of Louisville. Number One was a comparison between honest old PAOLI and HOLLISTER whom he described under the name of Dr Oleaginous. Psychological Study Number Two never appeared—but what writer has not promised an editor a series of articles and then failed to write them? The 'Times and Register' of July fourth, contained CLEVINGER's *Softening of the Brain*, in which he showed that this omnibus term has no place in scientific nomenclature. Two of his articles appeared in the 'American Naturalist' during this year: *The Coming Man*, in July, and in November, *Language and Max Müller*, in which he criticized certain of the theories of this famous philologist. It was no trouble for CLEVINGER to criticize anyone.

During 1892, he wrote various notes for 'Science,' such as *Preliminary Note on Sleep*, and the longer *Brain and Skull Correlations*. To the 'Times and Register' he contributed the *Acid Prevention of Cholera*, suggesting the acidulation of the lower bowel by galvanism, as the cholera germ thrives in the alkaline intestinal fluids, but is destroyed by acid. Many of the journals that have been named above, especially WAUGH's magazine, were now the beneficiaries of his prolific pen, but most of his contributions were either 'fillers' or re-statements of his former ideas. A brief address before the Evolution Club on *Nervous and Mental Aspects on Vivisection*, showing the value of animal experimentation in neurology and psychiatry, appeared in the 'Religio-Philosophical Journal;' a more formal address, before the Chicago Academy of Medicine, on *Natural Analogies*, was published in the 'American Naturalist.' At the request of MR CLARK BELL he wrote a short autobiographical sketch for the 'Medico-Legal Journal,' but in spite of the implied compliment, CLEVINGER had a poor opinion of CLARK BELL, Esquire—in which opinion we cheerfully concur. A medico-legal editor who fills his pages with astrology, simply advertises his asininity.

During 1893, further notes appeared in 'Science,' and the 'Times and Register' was not forgotten, but no noteworthy production issued from his pen. The medical press, however, exists on ephemera.

In 1894, CLEVENGER's *Sleep, Sleeplessness and Hypnotics* appeared in the 'Journal of the American Medical Association,' which had not yet commenced its assaults on proprietaries, for this contribution was really a eulogy of chloralamid. Lehn & Fink promptly put this panegyric in pamphlet-form, and mailed copies to physicians all over the country. The article had appeared originally in March, and by November this firm had distributed twenty-five thousand reprints. So at last CLEVENGER was a popular medical author. Neglect has now descended upon chloralamid, and under its full-dress name of chloralformamidum it is no longer official, but CLEVENGER always regarded it as the best of hypnotics and the safest of sleep-producers. In November of this year, CLEVENGER's *Myophobia*, a case report of insane dread of contamination, was published in the 'Western Medical Reporter.'

For the next few years, CLEVENGER's contributions to periodical literature were confined

largely to the 'Journal of the American Medical Association.' In *Conservative Brain Surgery*, which was published in June, 1895, he flayed Dr LANPHEAR, who in *Lectures on Intracranial Surgery*, had claimed impossibly brilliant results in operative cerebrology. EMORY LANPHEAR may have been shocked at this criticism, but since that time he has been exposed so frequently that he must have acquired immunity to ethical attacks. CLEVENGER'S *Post-Alcoholism* appeared in the 'Journal of the American Medical Association,' during October.

The 'Journal of the American Medical Association' of February, 1896, published the final version of CLEVENGER'S *The Mercurials*—a thesis upon which he had been working since his school-days, his preliminary reports having appeared, in the eighties, in the 'Chicago Medical Review,' 'Chicago Medical Journal and Examiner,' 'American Journal of Microscopy,' 'Chicago Druggist,' and 'Galliard's Medical Journal.' Taking as his text, the words of FRANKLIN BACHE, 'Of the modus operandi of mercury we know nothing, except that it acts thru the medium of the circulation, and that it possesses a peculiar alterative power over the vital functions, which enables it in many cases to subvert diseased

actions,' CLEVENGER proceeded to investigate its microscopy, chemistry, toxicology, physiological action and therapeutics.

The chief result of these studies was CLEVENGER's mechanical explanation of the mercurials in therapeusis. He took the ground that mercury acts mechanically as a deobstruent upon the glands and lesser tubular structures, by virtue of its unstable chemic properties, its volatility and great weight, claiming that all the salts of mercury are reduced to oxides and mercurial globules, exerting their peculiar effects mainly by their occluding action upon the minute tubules of the body, the syphilitic organism being enclosed by the mercury globules acting similarly to phagocytes in passing the micro-organism toward the emunctories.

CLEVENGER's experimentation was certainly suggestive, and to no other one subject was he faithful for so extended a period, but contemporary text-books describe mercury without mentioning CLEVENGER's researches—and we confess that our acquaintance with the dynamics of hydrargyrum is insufficient to enable us to judge whether the text-books or CLEVENGER's researches are at fault. It should be stated that former editions of HORATIO C. WOOD's standard

Therapeutics carried a foot-note reference to CLEVINGER's *The Mercurials*, but even this foot-note has disappeared. According to CLEVINGER, Professor WOOD deleted this foot-note from later editions of his text-book because in the meantime CLEVINGER had criticized WOOD's granular medulla of hydrophobia as an alcohol preservative artefact, and in revenge the angry WOOD resolved to advertise CLEVINGER no more. We trust that this version is not strictly accurate, but it is true that CLEVINGER could have collaborated with WHISTLER in writing the *Gentle Art of Making Enemies*.

In the same month that *The Mercurials* was published, CLEVINGER contributed *Some Misleading Medical Misnomers* to EDWARD C. REGISTER's 'Charlotte Medical Journal,' which was almost as worthless a periodical then as it is today. CLEVINGER's article, however, was a valuable one, for he inveighed against descriptive naming in medicine, and pleaded for eponymic terms. Explaining that electricians secured precision by avoiding descriptive phrases, and adopting such eponyms as farad, watt, ampere, ohm, faradic, galvanic, franklinic, after the discoverers of these measurements and currents, CLEVINGER pointed out that if the condition first described

by BAYLE had been named Bayle's disease instead of paretic dementia, or general paralysis of the insane, or progressive paresis, much confusion would have been avoided, and profession and public would be compelled to learn just what symptoms constitute Bayle's disease instead of guessing at them from the descriptive title. The Basle Anatomical Nomenclature is triumphant today, but we predict—at least we hope—it will be superseded by a nomenclature that adopts, instead of abandoning, eponyms, tho of course there is more excuse for descriptive terms in anatomy than in any of the clinical branches of medicine.

In May of this year, CLEVINGER's *Treatment of the Insane* was read by title in the section of State Medicine at the annual meeting of the American Medical Association, held at Atlanta, Georgia, and appeared in the 'Journal of the American Medical Association,' for October. It was a review of the methods of treating the insane in various countries and ages—fourteen long columns of infamies and horrors.

In January, 1897, the 'Journal of the American Medical Association' published CLEVINGER's *Pain and its Therapeusis*, in which he wrote that lactophenin 'is destined largely to supersede the

entire array of analgesics proper, owing to its non-toxic peculiarities' and other virtues. CLEVENGER's prophecies were numerous, but nearly always incorrect—the usual fate of predictions; in spite of his foretoking a great future for lactophenin, it is now regarded merely as a weak brother of phenacetin. *Pain and its Therapeutics* was CLEVENGER's last article in the 'Journal of the American Medical Association,' and it represents—with the exception of a few minor reports in unimportant periodicals—his final contribution to medical journalism.

In the following year, 1898, when he was fifty-five years of age, appeared his biggest book—the *Medical Jurisprudence of Insanity*, published in two stately volumes by the Lawyers' Co-operative Publishing Company, of Rochester, New York. Certainly it contains considerable valuable information on forensic psychiatry, and CLEVENGER was immensely proud of this achievement, and of course some of his friends—like attorney LUTHER LAFLIN MILLS—told him it was the best treatise on the subject in any language, but it has not reached a second edition, and never will, and it did not rank the name of CLEVENGER with THEODORIC ROMEYN BECK, ISAAC RAY, JOHN ORDRONAU, and JOHN JAMES

REESE. In brief, CLEVINGER's large *Medical Jurisprudence of Insanity* is not a landmark in legal medicine.

Dr CLEVINGER claimed this work was based on memoranda that he had been gathering for a generation; to collect notes is commendable, but they must be put together so the patches do not show. In the finished statue, the scaffolding should not be seen. Previous writings, quotations from others, personal observations, newspaper clippings, bunches of odds and ends, extraneous and adventitious comments, and additional knowledge, must be slowly and skilfully moulded into homogeneity. Several of his passages read like hastily-scribbled jottings that have been pulled out of a drawer, instead of well-considered and final phrases. One of the chief defects of CLEVINGER's books is that they are not organic buildings raised anew, but are second-hand structures put together from previous pieces. It is true that the blocks he uses are his own, but when once employed elsewhere they cannot fit so well into future work unless plenty of cement is applied. In the *Medical Jurisprudence of Insanity*, there is a discursiveness and diffuseness all thru the volumes, and we miss the conciseness, the systematized classification,

and those sonorous sentences that we find with pleasure in SPITZKA.

For example, the lengthy chapter on *Treatment* is suggestive and interesting, but it is so mal-arranged that if we wish to look up a certain line of therapy, or wish to find a list of drugs employed in insanity, we must hunt thru the entire chapter; obviously, it would have been better to discuss the subject in logical order: first, the prophylactic and psychical treatment, then the dietetic and hygienic treatment, finally the medicinal and surgical treatment. Essays may be lawless, but text-books must follow a system.

'The insane have more often been harmed than helped by medicines,' is the statement with which CLEVENGER opens this chapter. It is a dictum that would have aroused opposition in the days when men believed blindly in the *materia medica*, but today most doctors will not only admit its validity, but will extend its application to the sane also. The modern spirit is the great anti-toxin for tradition. No god at present sits on an uncontested throne, and pedestals that once were overcrowded with idols, now stand untenanted and unworshipped. Doubt whispers in the ear of the judge, the cleric grows less sure of hell, and physician and public are losing their

pharmacopeial faith. In other days, when a girl was married, she received as portion of her dowry a big medicine-spoon, and if it was not filled frequently enough the good wife imagined she was neglecting her duties, but the bride of today is apt to prefer a phonograph, a tennis-racket or a silver cigarette-case.

CLEVENGER's remarks on the bromides, however,—'the bromides have been used altogether too much; they bring about deterioration of blood, health, and mind,'—are at variance with the convictions of his confrères, for if there is one belief to which the profession still clings, it is bromides in epilepsy—tho even this conviction is being daily assailed by an increasing minority.

CLEVENGER's *Medical Jurisprudence* is a good work for lawyers, as medical matters are discussed in non-technical language, and if they learn a portion of its contents they will be able to embarrass many an insanity expert. Thruout the work we find his usual indignant outcry against politicians.

Five years later he issued another large work, the *Evolution of Man and his Mind*, published by the Evolution Publishing Company, which was himself. From this time on, CLEVENGER was his own publisher. His *Evolution of Man*

and his *Mind* may be considered a popularization of his more technical *Comparative Physiology and Psychology*. On account of its subject-matter it recalls WINWOOD READE's *Martyrdom of Man*, but is much inferior to that masterpiece. The reader who is unfamiliar with evolutionary and liberal literature will gain a varied assortment of interesting information by a perusal of CLEVENGER's volume, as it is a sort of kaleidoscopic review of world-history from the standpoint of a modernist.

In 1905 he published a small work which he named *Therapeutics, Materia Medica, and Practice of Medicine*. The subjects are arranged in alphabetical order, but without plan, method or sequence. It is a haphazard, heterogeneous jumble, and it is regrettable that it should have proceeded from the same hand which turned out the *Disadvantages of the Upright Position*, but such accidents seem liable to occur in an author's life. JAMES LANE ALLEN, whose *Reign of Law* and *Kentucky Cardinal* rank with the best fiction in American literature, penned also the *Heroine in Bronze*, which has all the defects of the average dime-novel, and few of its virtues; JACK LONDON, with his strong and splendid *Call of the Wild* and *Martin Eden*, was guilty of such inexcusable

and unmitigated trash as *Adventure* and the *Abysmal Brute*; EDITH WHARTON, with the exquisite *The Reef* and *Summer* to her credit, lost herself in the mawkish *Fruit of the Tree*. But the so-called *Therapeutics*, *Materia Medica*, and *Practice of Medicine* is not entirely devoid of interest, and CLEVINGER's definitions of medical sectarianism are worth quoting, because they reveal his detestation of all varieties of obscurantism in the healing art:

Christian Science: Homeopathy without sugar pills.

Eclecticism: An obsolescing offshoot from Thompsonianism in which it was taught that minerals from the ground denoted death and should not be used, but plants grew above the ground and indicated life and are alone fit for medicine, in ignorance of minerals forming on the earth's surface and of some plants beneath. Gradually many of the silly tenets of eclecticism have been abandoned and regular respectable medicine is mainly taught in its schools, until eclectic differ from regular physicians mostly in name tho materia medica and indications for therapeusis are a little antiquated and illogical.

Homeopathy: Suggestive therapeutics, or faith cure with sugar pills. False homeopathy ignorantly risks regular medicines, pretending they are homeopathic, particularly alkaloids because they can be used in minute doses.

Osteopathy: Ignorant massage.

Physio-Medical: Title of a quack system.

Mechano-therapy, naprapathy, and chiropraxis were not yet flourishing humbugs, and thus escaped inclusion on the unnecessary roll of medical denominationalism.

In 1909, when he was sixty-six years old, appeared his last book, *Fun in a Doctor's Life*, and with this publication CLEVINGER's career as an author may be said to end, for his contributions were no longer of sufficient value to be accepted by the better medical periodicals for which he had formerly written, and the material which he furnished in his old age to low-grade journals may be disregarded.

Fun in a Doctor's Life is an autobiography, but is evidently an offhand work, not intended to rank as a serious production. Events and persons of importance are omitted, while chapters are devoted to incidents of trifling significance. Our readers certainly know that CLEVINGER was pathologist at Dunning ten years before he was medical superintendent at Kankakee, but Dr CLEVINGER chooses to relate his experiences at Kankakee fifty pages before he speaks about Dunning. Moreover, the book is loaded with some of the oldest jokes on record. In spite of

these defects, *Fun in a Doctor's Life* makes easy, entertaining and interesting reading, and personally we are indebted to it for some data which we could not have secured elsewhere.

CLEVENGER was not a literary craftsman; he never spent time in polishing his phrases. Yet he was a ready writer, and his style, tho seldom powerful and never classic, was often vivacious and at times graphic. His work is not ill-natured, but fault-finding is abundant, and even his technical papers are polemical. He seemed to believe that whatever is, is wrong—which is certainly more honest than believing the reverse. In his writings he rarely boosted himself, but on occasions was apt to be a bit oracular—the common failing of authors. As an example of his satire, the following is characteristic:

Were typhoid fever to become the basis of damage suits, say against aldermen, for having allowed the city water supply to become polluted, there would arise a flock of experts who would swear away the possibility of typhoid fever ever having existed, and they would claim that what hitherto had been known by that name was really something else, due to alcoholism, syphilis, and indiscretions generally. The typhoid bacillus would be derided, and it could be easily shown that many bacilli had been discredited as causing disease;

and the poor old fogy who had defended the traditional typhoid would doubt his ability, on escaping from the witness-stand, to diagnose tonsilitis from hemorrhoids.

At a certain medical meeting, the ubiquitous WILLIAM OSLER placed his hand on CLEVINGER's shoulder, and smilingly said: 'We write too much.' In reviewing CLEVINGER's writings of half a century—from 1859 to 1909—we agree that for a man who was actively engaged in other pursuits, he published too much. With the exception of his *Treatise on Government Surveying*, which does not concern us, nearly all his valuable work appeared in the decade from 1879 to 1889, beginning with *Cerebral Topography* and concluding with *Spinal Concussion*, embracing his thirty-sixth to forty-sixth years. *The Mercurials*, in its final form, appeared in 1896, but as it was based on the experimental work he had done fifteen years previously, and formed the inaugural thesis that he had read to the Chicago Biological Society in 1880, it really belongs to the earlier date.

It would have been better, instead of publishing some of his later works, if Dr CLEVINGER had gathered the chief papers of these ten years into

a book bearing the title, *Neurological and Biological Essays*. Such a volume, containing the fruits of his mental prime, would occupy an honored place in the library of American Science.

CHAPTER VII

THE PHILADELPHIA GROUP

CLEVENGER'S work naturally brought him into communion with various scientists; with some of these his contact was only casual, while with others he formed friendships, fostered by correspondence, that persisted for years.

A pencilled post-card which CLEVENGER mailed to his wife during his Philadelphia visit in 1883, gives us a glimpse of his intimacy with several of the illustrious sons of the University of Pennsylvania:

I reached here yesterday morning quite early and the day was made a very pleasant one for me by Professors COPE, H. C. WOOD, PEPPER and MILLS. I stay at Prof. COPE's house, and went with him to the Philadelphia Academy of Natural Sciences, before which venerable body I lectured last night. I felt all the honors of the occasion. Today I visit Prof. LEIDY and then go to New York.

That must have been a memorable day which CLEVENGER spent with LEIDY, for the famous

Philadelphian was an intellectual spendthrift who poured out his biologic treasures in profusion. LEIDY was twenty years older than CLEVENGER, and it seems that his ancestors—who came from the valley of the Rhine—were neither great robbers nor favorites of princes, for the family did not boast of its heraldry, but worked for a living. JOSEPH LEIDY's father, PHILIP LEIDY, kept a hatter's shop on Third and Vine Streets. The hatter's wife died during JOSEPH's infancy, and instead of going into strange territory, Mr LEIDY promptly married one of his wife's relations. For centuries the stepmother has been a symbol of cruelty and harshness, but JOSEPH LEIDY's stepmother was his chief benefactor.

A letter written by a visiting relative during LEIDY's childhood, describes 'JOE, sitting on the floor, looking at the sides of an earthworm, stretched upon a board.' The hatter's son was a born scientist—mysterious are the ways of heredity—and in his young days, when more professional material was not available, he employed barnyard fowls as subjects for dissection. At the age of ten, he filled a small book with drawings of shells.

His stepmother sent him to the Classical Academy conducted by a Methodist clergyman,

but the embryo biologist often absented himself from the Latin and rhetoric to seek specimens. The boys of a rival institution sometimes fought with the students of the Classical Academy, and accordingly a colored lad named CYRUS BURRIS was hired to protect JOSEPH from 'those rowdy boys'—as the affectionate stepmother called the other boys. CYRUS BURRIS performed his duties perhaps too faithfully, for not only did he escort his charge to school, but he accompanied him when LEIDY remained away from school. On fine days, while his classmates were bending over their books, JOSEPH and his intelligent and likable companion wandered thru the neighboring woods, studying nature.

When LEIDY was sixteen years old, it was time to look around for a means of livelihood, and as he had a talent for drawing, his father thought he ought to be a sign-painter. But LEIDY had already passed several stray hours in the wholesale drug-house of his cousin, Dr NAPOLEON B. LEIDY, and wanted to be an apothecary. His father consented, and in due time LEIDY began to make money and might have remained a pharmacist for years, but at this juncture his stepmother interfered. She insisted that the drug-trade was not suitable for LEIDY, and urged that

he prepare himself for the higher calling of medicine.

But LEIDY's father stubbornly refused to hear of another profession, saying that the boy was getting a good salary now, and financial returns from medicine were always uncertain. Why, there was Dr So-and-So who had been practising for ten years, and didn't have enough capital to buy a decent hat. So the domestic peace was disturbed by wordy warfare, until victory perched on the stepmother's banner.

In the autumn of 1840, LEIDY became a pupil of Dr JAMES MCCLINTOCK, a private teacher of anatomy. The father proposed to pay the preceptor's fee in hats, a bargain which was accepted. But it seems the hats didn't fit, for a dispute arose, and PHILIP LEIDY was a mad hatter. The following year, young LEIDY matriculated at the University of Pennsylvania, received his M.D. in 1844, and displayed his sign at 211 North Sixth Street. Most doctors are average men, and they scramble greedily for coin, but in every age there have been physicians whom nature did not intend to be practitioners: in the seventeenth century, SWAMMERDAM graduated in medicine, but no parental threats could induce him to attend a patient; in the eighteenth cen-

tury, HUNTER flung down his scalpel with an oath when he was obliged to leave his dissection in order to earn 'that damned guinea,' and in the nineteenth century, HAECKEL fixed his office-hours at six in the morning, so patients would not interrupt his investigations. To this unpractical group of immortals, JOSEPH LEIDY belongs: he was called to an obstetric case, but before he arrived the baby was born, for Dr LEIDY forgot all about the coming event while engrossed over the anatomy of a worm.

One morning, during his twenty-third year, LEIDY sat down to a breakfast that was to make his name a landmark in the history of parasitology. For in a slice of ham that was served to him, he noticed numerous white specks. Instead of grumbling at the cook, he placed these specks under his microscope, and they proved to be the cysts of the *trichina spiralis*, which RICHARD OWEN had observed in the human muscle. LEIDY's interrupted breakfast prepared the way for LEUCKART's revelation that trichinosis in man is due to eating infected pork. Science is international, and the first step in this triple discovery was made by an Englishman, the second by an American, and the third by a German.

At the age of twenty-four, LEIDY proved that

the fossil horse of America, tho extinct at the time of COLUMBUS, had existed in this country in prehistoric eras. As his doctor's sign was still in his window when he accomplished this feat, it is obvious that he was not too busy with patients.

The following year, WILLIAM E. HORNER, the frail but brilliant professor of anatomy at the University of Pennsylvania, was advised to undertake a European trip for his health, and he asked LEIDY, who was already his prosector, to be his companion—and no coaxing was required to induce this doctor to abandon his practice.

Two years later, in 1850, GEORGE B. WOOD, the eminent professor of materia medica, arranged to visit Europe to collect models, casts, and preparations, and again the lovable LEIDY was invited to go. During these excursions, LEIDY met the leaders of European science: MAGENDIE and MILNE-EDWARDS in France, OWEN and DARWIN in England, and JOHANNES MÜLLER in Germany. Altho still in his twenties, LEIDY had a scientist's reputation, and when the modest youth, upon the repeated solicitation of Professor WOOD, sent in his card to MÜLLER, the great physiologist came out crying, 'Which is LEIDY?'

In 1851 LEIDY composed a work on *Flora and*

Fauna Within Living Animals, in which he established that the alimentary canal is the natural home of a most diversified animal and vegetable life. LEIDY dealt with facts, and rarely indulged in speculations, but in this treatise there occurs the following exception:

The study of the earth's crust teaches us that very many species of plants and animals became extinct at successive periods, while other races originated to occupy their places. This probably was the result, in many cases, of a change in exterior conditions incompatible with the life of certain species and favorable to the primitive production of others. . . . There appear to be but trifling steps from the oscillating particle of inorganic matter to a bacterium; from this to a vibrio, thence to a monas, and so gradually up to the highest orders of life. . . .

So here we have a remarkable passage, written by a youth of twenty-eight, several years before the publication of *Origin of Species*, briefly but clearly foreshadowing the essentials of Darwinism.

In 1852, LEIDY was all agog at the prospect of accompanying an expedition to the West to collect fossils, but at the last moment he was obliged to remain home. For the discoverer of

HORNER's muscle no longer had strength to lecture, and LEIDY delivered the course. The following year HORNER's illness passed into death, and such men as JOSEPH HENRY and JEFFRIES WYMAN worked for LEIDY's election to the vacant chair. SPENCER FULLERTON BAIRD, who for many years was a sort of superintendent of American science, wrote to LEIDY: 'Do not leave Philadelphia until you have settled the professorship. Do not worry about the fossil bones. They will be sent to you anyhow'—which was true, as LEIDY was then the most active paleontologist in America. But antagonists arose who accused LEIDY of making proselytes to infidelity, and it was asserted that 'he tried to prove that geology overthrows the Mosaic account of creation'—which it certainly does. Was there ever an honest scientist who has not been accused of attempting to subvert the Jewish account of creation?

Merit is sometimes rewarded, for LEIDY obtained the professorship. Thus at the age of thirty he became the successor to such historic figures in American anatomy as WILLIAM SHIPPEN, JR, CASPAR WISTAR, JOHN SYNG DORSEY, PHILIP SYNG PHYSICK, and WILLIAM E. HORNER. Moderate as was the salary, LEIDY

was delighted at the prospect of a definite income, for it liberated him from the necessity of continuing an intolerable practice. But the latter shook his head, and simply said that 'a first-class sign painter had been spoiled to make a poor doctor.'

For the rest of his life, LEIDY taught anatomy for a living, and became the leader of American anatomists, but his heart was in natural history. Altho educated as a physician, he lectured to hosts of medical students on anatomy without ever referring to its application in medicine. In the year in which he entered upon his professorship, 1853, he published, not a treatise on myology, but that paleontological classic, the *Ancient Fauna of Nebraska*. He described the attic of the middle ear, and proved the existence of the intermaxillary bone in the human embryo, thus confirming the prophecy of GOETHE, but LEIDY's discoveries in human anatomy were not significant. His *Elementary Treatise on Human Anatomy*, illustrated by himself, anglicised the terms in the text, relegating the Latin equivalents to foot-notes, under the belief that this method would render the subject easier for students—but the innovation did not popularize the English tongue, and when *Gray* appeared with

the names printed directly upon the structures, it became the Gibraltar of text-books. LEIDY was now a scientist of wide renown, but it is eminently characteristic of the man that one of the first copies of his book was inscribed 'To CYRUS BURRIS, from his old friend, the author.'

In 1854, the Ray Society published the last of DARWIN's four *Monographs on the Cirripedes*, and the greatest of biologists refers to LEIDY's discoveries, saying, 'owing to Prof. LEIDY's discovery of eyes in a *Balanus*, I was led to look for them in the *Lepadidæ*.'

The year 1859 was of importance to LEIDY, for upon the appearance of DARWIN's *Origin of Species*, he said he felt 'as tho I had hitherto groped almost in the darkness and all of a sudden a meteor flashed upon the skies.' ASA GRAY and JOSEPH LEIDY were the first scientists who welcomed the theory of evolution to America, and in answering LEIDY, DARWIN wrote with his usual modesty—and parentheses:

Most paleontologists (with some few exceptions) entirely despise my work; consequently approbation from you has gratified me much. All the older geologists (with the one exception of LYELL, whom I look at as a host in himself) are even more vehement against the



JOSEPH LEIDY

modification of species than are even the paleontologists. . . . Your sentence, that you have some interesting facts in support of the doctrine of selection, has delighted me even more than the rest of your note.

At the age of forty, LEIDY relinquished his bachelordom to become the husband of ANNA HARDEN. As they had no children of their own, they adopted the daughter of a deceased professor, and little ALWINA FRANKS brought them much happiness. Nature is an incorrigible blunderer: imbeciles are notoriously fertile, but JOSEPH LEIDY, one of the noblest of men, was sterile. LEIDY was not a Christian, but did not marry in order to have religion in his wife's name, for when interrogated on theology, he responded that his views were ably expressed in JOHN FISKE's *Cosmic Philosophy*.

For many years LEIDY's discoveries were so numerous that no one remembers them all. He knew little, and cared little, for general literature, and poetry to him was only 'rhyming stuff' and a 'roundabout way of expressing ideas,' but as a zoologist he knew everything from a protozoan to man. From the sediment which he squeezed from a piece of moss, he found thirty-eight kinds of rhizopods. A muddy drop of

water in a neighboring ditch would yield a discovery to LEIDY. His monumental *Fresh Water Rhizopods of North America* was created with a microscope that cost fifty dollars. With equal facility he could describe a new-born barklouse that crawled on a tree, or a huge mastodon that had lain for centuries dead. His researches on the comparative anatomy of the liver are valuable, and he was the first who experimented in the transplantation of malignant tumors; his differentiation of the parasitic amebæ, his belief that flies are the transmitters of disease, his location of a hookworm in a sick cat and suggestion that it might be responsible for pathological conditions in the human race, are almost lost in a mass of other discoveries in zoology, helminthology, and paleontology.

When LEIDY became the founder of vertebrate paleontology in America, MARSH was a lad and COPE an infant, and for a long time LEIDY carried the science on his shoulders. His *Cretaceous Reptiles of the United States*, and *Contributions to the Extinct Vertebrate Fauna of the Western Territories* are imperishable masterpieces, and his monograph of 1869, *On the Extinct Mammalia of Dakota and Nebraska*, is pronounced by OSBORN the most important paleon-

tological work which America has produced, with the possible exception of COPE's *Tertiary Vertebrata*. Yet with the exception of his text-book on anatomy and his reports to the Surgeon-General, LEIDY's writings brought him no pecuniary reward. Ever since money was invented, most of it has been in the wrong hands. Debauchers of our literature, our MCCUTCHEONS, MCGRATHS and DIXONS, make more from a best-seller which is forgotten within a twelvemonth of publication, than LEIDY earned from hundreds of pamphlets and volumes which advanced the boundary-lines of human knowledge. On several occasions, LEIDY attempted to augment his meagre income, but with results that ultimately led him to desist. Fortunes were made in petroleum; LEIDY speculated in it, until he found himself minus four thousand dollars. He invested in a silver mine, and lost eight thousand dollars. He purchased stock in a railroad, which from that day ceased paying dividends.

CLEVENGER has told the writer of LEIDY's approachableness and unaffected humility, and all who knew him testify that rarely has so great a man been so simple. At a time when the name of JOSEPH LEIDY was honored by every scientist

in America and Europe, he would go, at six in the morning, to the large fish-market on Twelfth Street, sit behind the stalls, talking and laughing with the men, watching them as they cleaned the fish to see if there was anything of interest to him. Passers-by who noticed this broad-chested, strong-limbed man of two hundred pounds, with his full beard, flowing hair and pensive eyes, must have taken him for a super-fisherman.

LEIDY loved peace, and never made an enemy. So averse was he to belligerency, that some one remarked, 'LEIDY is an invertebrate.' His goodness, gentleness, helpfulness, were proverbial, and he was regarded as the prototype of the faultless man. Perhaps the bitterest words that LEIDY ever uttered, were spoken in the winter of his life, to the distinguished Scottish geologist, Sir ARCHIBALD GEIKIE:

Formerly every fossil bone found in the States came to me, for nobody else cared to study such things. But now Professors MARSH and COPE, with long purses, offer money for what used to come to me for nothing, and in that respect I cannot compete with them. So now, as I get nothing, I have gone back to my microscope and my rhizopods and make myself busy and happy with them.

LEIDY received various foreign honors, such as the Lyell Medal from England and the Cuvier Medal from France, and was president of several scientific associations in America. He served as first president of the Association of American Anatomists, and was succeeded by one of his pupils who resembled him in many respects—HARRISON ALLEN.

The ancestors of ALLEN arrived in Philadelphia with WILLIAM PENN, but evidently did not accumulate wealth for their descendants, as HARRISON ALLEN was obliged to leave high-school because he lacked funds. Already he was eager for natural history, but the need of wages drove him into a hardware store; next he worked on a farm, and the nearest he could get to science was by entering the dental office of Dr J. FOSTER FLAGG. During his leisure he read medical books, took courses in the University of Pennsylvania, where he came under the influence of LEIDY, and in his twentieth year received his M.D., just as the Civil War was beginning.

At first he was resident physician in the Blockley Hospital of Philadelphia, but during the greater part of the conflict was assigned to hospitals in Washington. As there are more than 140 references to him in the *Medical and Surgical*

History of the War of the Rebellion, he must have been kept busy, but every precious moment that he could spare was spent in the Smithsonian Institution—and here he worked under those makers of American science, SPENCER F. BAIRD and JOSEPH HENRY.

ALLEN's earliest publication was a *Description of New Pteropine Bats of North Africa*, which had been brought over by the explorer DU CHAILLU. ALLEN never deserted these aerial mammals, and wrote over thirty essays on bats, including the classic *Monograph on the Bats of North America*, which was published by the Smithsonian Institution. In honor of his high-school teacher, Dr HENRY McMURTRIE, ALLEN named the Mexican bat, *Centurio McMurtrii*—this being the highest honor that ALLEN could bestow.

But ALLEN's scientific interests were not limited to bats, as is evident from his *Crania from Florida Mounds* and *Hawaiian Skulls*—both of them important contributions to craniology. It was HARRISON ALLEN who dissected and described that unforgettable freak of nature—the Siamese twins. Among his other writings are the *Origin and History of Art-Designs*, tracing them to anatomical archetypes, *Localization of*

Diseased Action in the Osseous System, On the Rhinoscope and Diseases of the Pharynx, On Pathological Anatomy of Osteomyelitis, and The Jaw of Moulin-Quignon. His text-book, *Outlines of Comparative Anatomy and Medical Zoology*, was followed in later years by a *System of Human Anatomy*—the result of long and faithful travail, and bringing him fame, but leaving his pocket empty.

In his twenty-fourth year ALLEN was appointed professor in the University of Pennsylvania, and for thirty years he taught in this institution, tho he shifted somewhat from chair to chair. He was devoid of aggressiveness, but rose to a leading position in American anatomy and rhino-laryngology. His researches were not of Leidyian scope, but he resembled LEIDY in character: pure-hearted and humble, earnest and unpretentious, he labored for science and loved his fellow-men. From the lips of HARRISON ALLEN never fell an unkind word—even about bores. This unusual forbearance on ALLEN's part is vouched for by so careful an observer as BURT G. WILDER, who further claims that if the devil had been objurgated in his presence, ALLEN would have answered: 'His satanic majesty has doubtless many sins to answer for, but let us not

forget his extraordinary ability, activity, and enterprise.'

WILDER, who was closely attached to ALLEN, points out that the climax of ALLEN's useful and honorable career was reached in 1891, for in that year he became professor, for the second time, of comparative anatomy and zoology at the University of Pennsylvania, president of the Contemporary Club of Philadelphia, curator of the Wistar Institute of Anatomy, president of the Anthropometric Society, president of the Association of American Anatomists, succeeding JOSEPH LEIDY, and published a dozen papers.

CLEVINGER's acquaintance with ALLEN began, at the outset of the former's professional career, when he sent Professor ALLEN some reprints which were acknowledged in a courteous note:

I have received your papers, which you were kind enough to send me, on the *Sulcus Rolando*, the *Topography of the Cerebrum*, and the *Action of Mercury*. I have read these with great interest. I would esteem it a great favor if you would send me your papers that you may hereafter publish. I will heartily reciprocate.

CLEVINGER then told ALLEN of the School of Biology he was founding, and ALLEN, who seems to have been moved easily to enthusiasm, cried,

‘All hail to Chicago! I wish we had more of her spirit here.’ But when the Clevengerian School of Biology failed to materialize, and instead, the Dunning Asylum sent its stench over the land, ALLEN became reconciled to the town that his ancestors chose, and wrote to CLEVENGER: ‘Truly you have an extraordinary state of affairs in Chicago. If we have any feelings of discontent here, how quickly they should disappear when the Philadelphia status is compared with the Chicagoan.’

In ALLEN’s letter to CLEVENGER, of April, 1884, occurs an epigrammatic paragraph which might provoke considerable comment, in defence and in rebuttal:

The connexion between biology and clinical medicine is a line I am fond of examining. A hospital is to me a cabinet and each patient a specimen. I study medicine by the methods I learned in studying natural history—and I believe it is the correct method.

Two typewritten letters which ALLEN, as chairman of the executive committee, sent to CLEVENGER, are worth reproducing, as they afford us glimpses into the infancy of the now important Association of American Anatomists. The first is dated, December, 1889:

In September, 1888, at the time of the meeting of the American Congress of Physicians in Washington, an Association of American Anatomists was organized. As Chairman of the Executive Committee of this Association I extend to you a cordial invitation to be present at the next annual meeting in this city.

It is proposed to meet in the biological department of the University of Pennsylvania, December 26th, 27th, and 28th. Prof. JOSEPH LEIDY will be in the Chair. Papers will be read by a number of distinguished anatomists.

You are cordially invited to attend these meetings as a guest of the Association, and to read a volunteer paper or exhibit specimens.

The second of these communications is dated January, 1890:

At a stated meeting of the Executive Committee of the Association of American Anatomists held December 27th, 1889, you were invited to become one of the original members of the Association. If you desire to accept this invitation will you kindly send me word to that effect? It is due to you to state that the call for the first meeting of the Association was issued by Dr A. H. P. LEUF, who was imperfectly informed regarding the personnel of the working anatomists of the country. The Executive Committee is doing all that lies in its power to correct the errors

which were inseparable from the first plan of organization, and earnestly request that you will join with them in directing a movement which it is believed will be of great service in the cultivation of anatomical science in America.

It is proposed to hold an annual meeting of the Association. Every third year this meeting will be held in Washington. All other times it will meet at time and place with the American Association of Naturalists.

I herewith enclose a program which may interest you.

CLEVENGER's stock of information was surprisingly heterogeneous, and HARRISON ALLEN's last letter to CLEVENGER—at least, the last that has been preserved—contains an interesting technical query, but whether CLEVENGER evolved the terms himself or found them in the pages of OWEN, we do not know. The letter is dated December, 1894:

I am greatly interested in the pamphlet on *Myso-phobia* which you were kind enough to send me a short time ago. In it you allude to the 'ulnar fingers, radial fingers, etc.' I have been giving some attention of late to the hand and have always been of the opinion that the manus of all mammals is divided into an ulnar and a radial set of fingers (toes). I did not know that anyone else had called attention to it. If not too much

trouble, will you kindly tell me what induced you to use these terms and where I can find the original description of such classification?

Of all the societies which HARRISON ALLEN graced by his membership, he was most intimately connected with the Academy of Natural Sciences of Philadelphia, sending to it his first essay on bats for publication in its proceedings, and the following year joining it at the instigation of EDWARD DRINKER COPE, who was ALLEN's senior by only nine months, but already an active worker in science. COPE, like ALLEN, came of old Philadelphia stock: his great-grandfather, CALEB COPE, was the sturdy Quaker who defended Major ANDRE from mob violence; his grandfather, THOMAS PIM COPE, founded the house of Cope Brothers, celebrated in the early mercantile annals of Philadelphia; his father, ALFRED, a man of wealth and intellect, determined to give him an excellent education, tho he must have known that the sons of rich men are often incapable of education.

But Mr COPE had no trouble with EDWARD, who literally absorbed knowledge from his cradle-days. When seven years of age, EDWARD was taken by his father on a trip to Boston by

water, and on the way the boy kept a journal in which he discussed and illustrated the creatures he observed in the sea. At nine, his drawing and description of a caterpillar revealed the developing naturalist.

Ten years later, COPE was a full-fledged scientist, studying reptiles at the Smithsonian Institution, under SPENCER F. BAIRD. Within a few months he returned to Philadelphia, and worked in the Academy of Natural Sciences, cataloging the serpents and describing new species. In the autumn of 1859, when a small green-covered volume revolutionized biology, COPE was still in his teens, but the Academy of Natural Sciences of Philadelphia was already publishing his first scientific paper, *On the primary division of the Salamandridæ*, with a description of two new species. Writing to his cousin at this time, young COPE referred to his maiden essay, and then casually remarked: 'Nobody in this country knows anything about Salamanders, but Professor BAIRD and thy humble coz.'

Before COPE was old enough to vote, he was a veteran of science. He modified systems with nonchalant assurance, and in an amazing communication published in his twentieth year, he says:

In proposing the name *Zaocys* . . . we are giving expression to an opinion long held by us as to the unnatural association of species in the so-called genus *Coryphodon*. . . . In it we find cylindrical terrestrial species, united with compressed subarboricole species, upon a peculiarity whose value as an index of nature appears to us entirely imaginary. The very nature of the coryphodontian type of dentition, as distinguished from the isodontian and syncranterian, would lead us to infer its inconstancy.

COPE never studied the cloak and suit business, medicine, or law, as his financial circumstances relieved him from the necessity of adopting a paying profession. But altho deprived of the 'splendid spur of poverty,' he toiled ceaselessly in the pursuit of science. Even when he inherited more than a quarter of a million dollars, he worked on with unrelenting energy. At twenty-one, he was probably the foremost herpetologist in America. It is not surprising that at the age of twenty-three this phenomenon found himself a victim of overwork. The usual remedy was advised—a trip to Europe. He recuperated by visiting the museums of England, France, Holland, Austria, Prussia—everywhere examining reptiles. He looked over JOSEPH HYRTL'S skeletons of fishes, and was so delighted with the

professor's preparations that he purchased them. COPE, however, did not secure these specimens simply to label them and encase them in glass, but with this collection as a basis, he recast the classification of fishes.

Upon his return to America, COPE, in his twenty-fourth year, was appointed professor of comparative zoology and botany at Haverford College. Within three years, however, ill-health caused the youthful professor's resignation, and for the following twenty-two years he held no chair. But these years were filled with fruitful investigations which placed COPE in the front rank of paleontologists. As a private explorer, and as vertebrate paleontologist to the United States Geological and Geographical Survey, he roamed thru Ohio, Kansas, Colorado, Wyoming, New Mexico, Montana, Oregon, Texas,—everywhere west of the Missouri—and dead eons unrolled their secrets at his approach, and extinct animals lived again. In the chalky beds of these western states and territories, COPE did a giant's work, and was equally fertile in building up generalizations, and in describing species new to science. Many of his bold deductions have not survived the test of time, but the innumerable genera which he named, and the thousand unknown

species which he brought to light, will always add their testimony to the genius and industry of EDWARD DRINKER COPE.

Like every scientific worker in the sixties, COPE was influenced by the doctrine of evolution, and was among the first to apply its principles in his classifications. COPE, however, was rather a Lamarckian than a pure Darwinian, claiming that the 'survival of the fittest' does not explain the 'origin of the fittest,' and in seeking to discover and demonstrate the laws governing the origin of the fittest, he founded the Neo-Lamarckian School in America—and such men as HYATT and DALL went to this school.

Among the huge quartos and octavo volumes and endless essays which came from the tireless pen of COPE, may be mentioned *Origin of the Fittest*, *Primary Factors of Organic Evolution*, *Batrachia of North America*, and *Vertebrata of Cretaceous Formations of the West*. The Royal Geological Society of Great Britain gave him its medal, Heidelberg conferred upon him an honorary Ph.D., and when he accepted the chair of geology and mineralogy at the University of Pennsylvania, later including zoology and comparative anatomy, he had long been acknowl-

edged as one of the greatest men of science that the American continent had produced.

Unlike LEIDY and HARRISON ALLEN, COPE possessed aggressiveness, and he knew how to make and keep enemies. That unique littérateur, ISAAC D'ISRAELI, wrote an interesting chapter, *On the Influence of a Bad Temper in Criticism*. He didn't know COPE and MARSH, but when these two professors thought of each other, they were certainly influenced by a bad temper. On occasion, COPE could be as pugnacious as HUXLEY—and between COPE and HUXLEY there existed more coolness than cordiality. Concerning a fossil which opposed one of his deductions, COPE jestingly remarked, 'I wish you would throw that bone out of the window;' he felt a parent's fondness for his theories, and hesitated to disown them, even when they proved to be misbehaving. An authority on fossils does not necessarily become fossilized, but COPE did not believe in votes for women or negroes, and his tract on *The Relation of the Sexes to Government*, was distributed by that antiquarian society, the New York State Association Opposed to the Extension of Suffrage to Women. COPE was a man of exemplary character, and the his-

tory of nineteenth century science cannot be written without his name.

For several years COPE was editor of the 'American Naturalist,' a periodical which experienced considerable difficulty with printers' bills, but whose monthly arrival was eagerly awaited by scientific workers. In its few advertising pages could be seen a placid and familiar face, whose reserved but benignant smile overlooked this underlined message: 'Lydia E. Pinkham's Vegetable Compound is a positive cure for all those painful complaints and weaknesses so common to our best female population.' Editor COPE may not have admired the enterprising old lady, but the publishers needed her to help pay the aforesaid bills. It was thru the medium of this magazine that COPE and CLEVENGER became acquainted; CLEVENGER's contributions to the 'American Naturalist' from 1881 to 1892 have already been noticed. In the issue of January, 1885, COPE wrote a signed and appreciative review of CLEVENGER's *Comparative Physiology and Psychology*.

CLEVENGER's personal letters to us contain frequent references to his Philadelphia group of friends, especially COPE, and we will introduce these reminiscences here:

In rattling off these letters of transmittal to you I feel they are often carelessly worded, and show propensity to both prolixity and repetition of jocularities, and maybe they realize SPITZKA's warning that I was falling into my anecdotage.

When I don't have to use care, as in talking to friends, the colloquial garrulity and carelessness is a comfort, and enables things the stilted conventional writing does not. So please overlook blunders of all kinds and let me talk as I used to do to my friends of old in scientific ranks.

ED COPE of Philadelphia was one of these. He was professor of natural sciences in the Pennsylvania University, and was constantly fishing for chances to push me, and get me near him. He had me appointed professor of biology in the university, but I foolishly forfeited the chair by thinking the salary of \$500 a year too small, as I had a big family and could not see my way clear to go on that sum. My family many times since then has lived on less, when my rackets with politicians lost me an appointment, but we never know what is in store for us. Provost PEPPER promised to confer an A.M. on me, at COPE's solicitation. I was mystified by delays by PEPPER, until a friend told me it was the usual thing to give \$100 for the degree. I could not spare the \$100, and would have felt cheap had I paid anything for it. COPE also came within one vote of getting me the superintendency of the Penn-

sylvania General Hospital for the Insane. COPE always gave my articles first place in his *American Naturalist*.

COPE made three fortunes, and lost two of them, when I begged him to go slow and keep his beautiful home corner on Pine and 21st Street, for his family. One of the twin houses he had stocked with geological specimens, mainly fossils. He was a delightful friend in every way. Absolutely without guile or false pride. He was like LEIDY in approachableness and unpretending.

COPE was a brilliant orator, and once in the Technical institute in Boston I heard him and ALEXANDER AGASSIZ debating about the number of vertebræ in a fossil, and the evolutionary question came up. This was in August 1880, and COPE argued on evolutionary lines, while AGASSIZ was a 'trimmer' like his father; both were eloquent and held attention, but the difference was evident in COPE being absolutely sincere, and AGASSIZ was untruthful, insincere and a special pleader for religious prejudice.

Your admiration for Prof. E. D. COPE touched me deeply, for he was a man I loved, and he desired all good things for me. I ought to have many letters from him saved up, but fear that I may have destroyed most of them; if not, I shall be happy to send them to you.

He was plain, unassuming, and as I told you before, eloquent, full of his subject, appreciative of others' knowledge, never jealous, but even praised rivals and those jealous of him, if any excellence in them. Prof. MARSH on the other hand was contemptibly vain, priggish, snobbish in dress and manner, always finding fault with COPE.

ED COPE was plain ED, and western in manner, utterly without false pride, no airs or assumption of superiority ever. Tireless worker, he had the house three or four stories next his residence filled from cellar to garret with his findings of fossils,—arranged nearly as could be in eras from lowest to highest. Most of his valuable discoveries were in the Cretaceous of Wyoming. It was there he found the eohippus the connection between carnivores and herbivores, a little fox-like animal with ginglymoid joints like those of the modern horse, the 5-toed. He had it mounted in a plaster frame and setting, and explained it to me as we were dining at his house in 1882.

I remember I accused him of being involved in his previous metaphysical studies, and once in the *Open Court* we got into a very good-humored discussion of the soul. He had some way of making spirit originate matter, while I was agnostic and held that while it would be comfortable to be sure of this, we always landed where we started in any attempt to explain such things.

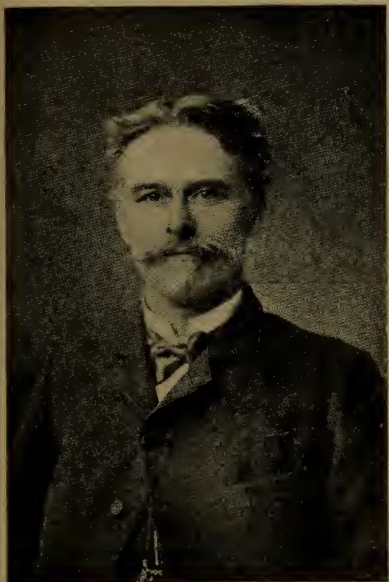
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In Philadelphia there was an harmonious coterie made up of COPE, LEIDY, POWELL, HARRISON ALLEN, and other sincere truth-seekers.

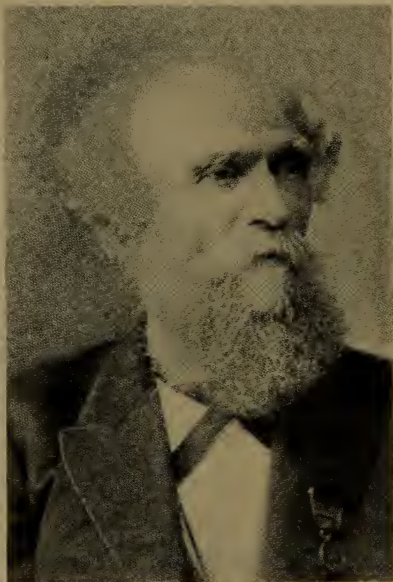
My trips to Philadelphia were pleasant ones as you may imagine when university professors came to the Colonnade Hotel (where I stopped always) when they read my arrival in the next day's paper, and insisted on my coming to their homes while in town. I much preferred COPE's house and he always chuckled when he got to me first. But I never went there till he came for me, as I did not want to force my welcome.

Lots of fine chaps in those days. One was the famous head of the United States geological surveys, Major POWELL. Another was HARRISON ALLEN, whose letters I sent to you. He was a wholesouled, honest, hard-working practitioner who loved truth for its own sake. He impressed everyone as a sincere gentleman, free from ostentation and probably over-modest. He was inventive, and made able deductions in biological studies. Professors COPE, LEIDY, POWELL, and I were very fond of him.

Then there was the great LEIDY, smiling, handsome, modest; chuck full of biologic lore, with his Rhizopods under way. Friends asked him how fishing was when he went to saw-mill dams to net rhizopods. He published his big engravings of amebæ and their cousins, thru the Smithsonian Institution; guess it must have cost \$50,000 to engrave and bind. They can't be had now, but were \$10 each at first.



E. D. COPE



JOSEPH LeCONTE

LEIDY presided at the meeting of the Philadelphia Academy of Natural Sciences when I made my speech about distribution of valves in the veins. I spoke 20 minutes, and COPE followed me in a grand complimentary address of an hour and a half, beginning: 'Here is an instance of the evolutionary doctrine making simple what was a baffling puzzle to anatomists and physiologists.' He elaborated the matter in connection with his own work, and finally announced that I would have an article on this subject in the January *American Naturalist*, entitled *Disadvantages of the Upright Position*.

COPE's correspondence with CLEVINGER—like HARRISON ALLEN's—began in October, 1880. That modern convenience, the secretary-stenographer, had not yet been evolved into indispensability, and COPE's letters, whether brief or lengthy, are in his own handwriting:

Yours with the MS. and the blocks are received. The paper cannot be used before the January or February number, on account of the number of articles on hand; we will insert as soon as possible. The publishers say they will pay the \$6.00 if you will let them take a set of electro copies, as they must have them in case of reprint. How does this strike you? I am getting somewhat shy of asking them to increase their free-list, which is pretty long now, but if you can get

us a subscriber somewhere among your acquaintances, I will do it with an easier conscience (will do it anyhow).

Scientists do not have to teach anything *sub rosa* unless, unfortunately, their bread and butter depends on it. The time is however not far distant when bread and butter can be had without anyone's sacrificing his convictions or even suppressing them. Anyone who contributes to this state of things is a public benefactor. Evolution, well and clearly taught, will put an end to ultra-sectarianism and classic absurdities more promptly than anything else. People will take facts in preference to fancies when they can only *see* them, and it is our privilege and pleasure to try and make them see. There are various fields in which this can be done, embryology, physiology and paleontology being the fields of ultimate demonstration; to all of which anatomy is the front door, so to speak.

In COPE's second letter to CLEVINGER, dated November, 1880, we are treated to the spectacle of two learned philosophers discussing a 'financial proposition,' involving the sum of six dollars:

Yours received. I do not exactly understand your financial proposition, as its various points do not appear to be entirely consistent. You wish to pay your subscription to the *Naturalist* (\$4. per annum), but

you wish also to be credited with \$6.00 (18 months subscription *American Naturalist*). Now that means that you will take a year or 18 months of the *Naturalist* for use of the cuts, does it not? Explain so that I may know what to say to publishers.

Your account of the MARSH affair sounds very familiar. M. is a very peculiar man. I constantly have offers from his men to employ with me. SCOTT, of the Princeton exploring party, has just returned from 3 years in Heidelberg, tells queer stories of M. and doesn't like him any better than I do.

COPE, in his communication to CLEVENGER of May, 1881, asserts his priority over FILHOL, and alludes to his altercation with HUXLEY:

Your card is received. The points made by FILHOL were made by myself mostly, 7 to 3 years ago, in Government Publications. Some years ago, I had a slight skirmish with Professor HUXLEY and since then he has tried the ignoring and silencing process on me with some effect. It depends on American Naturalists whether this shall be effective or not. See April *Naturalist*, p. 340.

I send you two papers which contain some of the points I have made—most of them more striking than FILHOL's.

N. B. I find I am out of extras of the papers in question; so I refer you to the places which you can easily find. Annual Report of the U. S. Geological

Survey, F. V. HAYDEN, 1872, p. 644 to bottom of 647; especially p. 645. Final Report, G. M. WHEELER, vol. IV, pt. II (Paleontology of New Mexico) from p. 273 to p. 282 where the subject is still more fully set forth (1877). FILHOL's publications are all later, and are less conclusive. They are also mainly technical, so the reader has to draw his own conclusions.

In the early months of 1884, COPE sent the following note to CLEVINGER:

The directorship of the Pennsylvania Hospital for the Insane, lately vacated by the death of Dr KIRKBRIDE, is vacant. How would you like to apply for it? Your Pennsylvania birth might help you. Apply to the board of managers of the Pennsylvania Hospital for the Insane, West Pennsylvania, if you wish to get the place.

COPE's reference to CLEVINGER's 'Pennsylvania birth,' was merely a geographical error, for surely he was not so provincial as to imagine that all good men must be born in Philadelphia. COPE busied himself in CLEVINGER's behalf, but CLEVINGER had the luck of those men who lose by one vote. In the spring of 1893, however, COPE was able to send CLEVINGER a card of congratulations concerning the Kankakee superintendency—but he did not forget he was an ed-

The American Naturalist.

A Popular Illustrated Magazine of Natural History and Travel.

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Terms of NATURALIST, }
\$4.00 a year.

2100 Pine St., PHILADELPHIA, 2/26 ... 1884

Dear Dr. Cresser

The Directorship of the
Penna Hospital for the Insane
lately vacated by the death
of Dr. Kirkbride is vacant.
How would you like to apply
for it? Your Pennsylvania
birth might help you.
Apply to the board of Man-
agers of the Penna Hospital
at Philadelphia. If you
wish to get the place.
Very truly yours

E. D. Cope

LETTER FROM E. D. COPE

itor. The mind that grappled with the most intricate problems in herpetology, ichthyology and mammalogy, could condescend to 'scout for subscribers.' COPE wrote:

Glad to hear of your appointment. Does the institution take such journals as the *Naturalist*? We are on the scout for subscribers! I send you a late screed on primitive man.

In the foregoing pages, incidental mention has been made of Dr PEPPER, but no account of the sons of the university would be complete without his dominating and vigorous personality. WILLIAM PEPPER was certainly born in Philadelphia, in 1843—the same year that CLEVINGER was born in Florence. Each had a distinguished father, but otherwise their paths diverged. CLEVINGER's journey was so devious that he himself did not know where he was going, but PEPPER went straight to his goal. There was nothing visionary about PEPPER; he did not dwell in the clouds, but at 1811 Spruce Street. Current morality, including Newport society, did not revolt him, and instead of attempting to improve the Republican Party, he voted for it. He was never a voice crying in the wilderness—he believed in a chorus. He marched in the van of his genera-

tion—but he never stepped ahead of it. He was a leader—but not a reformer.

As a practitioner and consultant, as a teacher of clinical medicine, as a research worker, and as an editor and author, PEPPER made his mark, but it was as provost of the University of Pennsylvania that he became the most celebrated man in Philadelphia. Whoever reads the *Reminiscences of a Provost*, written by PEPPER's predecessor, CHARLES J. STILLÉ, will see what an impotent, meaningless position it was prior to 1881, but PEPPER made it a place of power. He was a strong man whose limitations were his fortune, for he believed Philadelphia was the American paradise, and that the center of that heaven was the University, and that the pivot of the University was the provostship.

With his social standing, his faultless dress, his gracious manner, and the 'PEPPER smile' which entered into the traditions of Philadelphia, he moved mountains. The University needed money, and PEPPER admitted he could plead for money as a man pleads for his life. He was a magnificent beggar, and no one else unloosened so many Philadelphia purse-strings. Men who swore that PEPPER would never see a dollar of theirs, succumbed to his suavity, and contributed

thousands. As the prince of persuasiveness, he had no rivals. Whatever he desired, he obtained—whether it was an ancient Moorish vase from a Mexican collector who vowed he would never part with it, or a new museum from an obdurate city council. He wheedled the best teachers in the country to joining his Faculty at the lowest salaries; financiers and politicians he met on their own ground, and came away victorious. He could bamboozle people beautifully.

His plans were so multitudinous that to carry them into effect he was forced to consort with all sorts of individuals, but PEPPER was not squeamish, and he never hesitated to make use of a man simply because that man happened to be his enemy. As a matter of fact, PEPPER was too busy to waste any time in bickering. As a vertebrate paleontologist, COPE has been ranked with CUVIER, OWEN and HUXLEY; and such was the success of PEPPER's conciliatory adroitness, that he was compared to those wily cardinals of the seventeenth century, RICHELIEU and MAZARIN. 'I am seeking,' confessed PEPPER, 'so many favors from so many different people in so many different directions, which is all very complicated, I feel like a juggler with many plates spinning, and all must be touched at the right spot.'

project of y-
 are you any
 dear
 your truly
 Wm. Cope
 J. D. Cope
 Dr. Cope
 Dr. Clevenger
 Comp. of
 E. D. Cope
 11 Spruce Street.

Dr. Wm. Cope,

I have succeeded in
 getting the Committee to agree
 to report favorably Dr. Clevenger's
 for Honorary A.M. to Board
 of Trustees. It must
 lie over a month; and if
 acted on favorably by Board
 will be completed at once.

Commencement is March 18.
 I am glad you are so receptive
 into your collections. I
 am ready at any time
 to take up the further
 consideration of Museum

LETTER FROM WILLIAM PEPPER

to E. D. COPE, concerning CLEVINGER's honorary A.M. Sent by COPE to CLEVINGER, and containing COPE's signature in the upper right-hand corner

PEPPER was ambitious, but his ambition was never personal—it was for his ideal University. When he began to collect contributions for a new undertaking, he headed the subscription-list with a liberal donation from his own pocket—in this way he gave away nearly half a million dollars which he had earned in the practice of his profession. PEPPER's administrative duties checked his research-work, but he kept up an enormous consulting practice which took him all over the country. No other physician in America was known to so many conductors.

PEPPER's triumphs were not all gained by smiles and suavity; often he was forced to fight like a titan for his plans. His life was spent in presiding over meetings, and after one of these meetings he uttered these characteristic words: 'I gathered up the Faculty into one hand last night and swung it as a stick.' His passion for work was almost pathologic, but the only remedy for his rare disease was more work. Unlike PAUL LA FARGUE, he did not believe in the right to be lazy.

At rare intervals, PEPPER experimented with a vacation, but he could not enjoy rest. One summer, while recuperating at Mrs HEARST's home in Pleasanton, he declared: 'It is all very

well to prate of contentment and pleasure, but I am debauched by affairs, and know no peace except in the midst of full activity.' PEPPER was a commander who could set groups of men into motion, and while one group was working for better boulevards and purer water for Philadelphia, other groups were excavating Babylon, Egypt, Italy, and Nippur, because PEPPER so willed it—for his museums.

It had been PEPPER's habit to work early and late, but the time came when he would tire at sundown. PEPPER was an oak that bent beneath the long-continued storms of overwork. Everyone could see the premature wrinkles on his brow, but only a few knew that PEPPER was falling in his prime. But this self-controlled man did not whimper. 'I did it deliberately,' he declared, 'and am not sorry, but must pay the price.' He was the embodiment of HENLEY's *Invictus*.

Even in the closing years, PEPPER refused to drink from the cup of indolence. 'If it costs me my life,' he said, 'I will see this thru. Now don't tease me about it; arguing makes me nervous and lessens my strength. I must go on till the end.' PEPPER did not work with any hope of future reward, and his ringing words on this subject

should be nailed on every church-door in Christendom:

It would make not a stiver of difference if I were to learn sure that death is to be the end-all and the be-all of the business; the work is here; there is value in it. It will help others; we cannot let it alone undone, or we should be more unhappy than as it is. Let us leave teleology alone.

PEPPER had many admirers, but his achievements are his most eloquent eulogists. He created the Free Library of Philadelphia, and the Free Museum of Science and Art, and when he founded the Philadelphia Commercial Museums, he opened them with an exposition which the President of the United States attended—after a personal interview with this irresistible organizer. As provost, WILLIAM PEPPER established the following university departments: the Wharton School of Finance and Economy, the Biologic Department, the Department of Philosophy, the Veterinary Department, the Training School for Nurses, the Department of Physical Education, the University Library, the Graduate Department for Women, the Department of Hygiene, the Department of Architecture, the Wistar Institute of Anatomy and Biology, the

William Pepper Laboratory of Clinical Medicine, and the Department of Archeology and Paleontology. BENJAMIN FRANKLIN laid the corner-stone of this temple, but WILLIAM PEPPER was its chief builder.

PEPPER's clinical and biographical papers are well-written, and his two addresses on *Higher Medical Education*—the first, delivered October, 1877, and the second, October, 1893—were important contributions to the subject, and are still valuable for ideas and data, but his most notable literary work is the *System of Medicine* which appeared, 1885-6, in five massive volumes. It was an imposing undertaking, which could have been carried to completion only by a man like PEPPER or GROSS—a man of equanimous temperament and magnetic personality, with a wide acquaintanceship. The leaders of American medicine contributed to this magnificent *System* which has now been superseded, but not surpassed, by that of OSLER—and except where PEPPER's *System* has become antiquated, we prefer it to OSLER's.

PEPPER issued the original prospectus of the work in 1881, and among those to whom he applied was CLEVINGER, altho Dr CLEVINGER's diploma was then only two years old. PEPPER's

first communication to CLEVINGER is dated November, 1881:

The accompanying Prospectus will explain itself. I undertook the work with reluctance, but the cordial favor and unanimous cooperation of all whom I have invited to write for it has been very gratifying to me. The complete success of the work is now assured, and much of the material has been allotted; but some very interesting and important chapters are still unsigned.

I write now to ask if you will be good enough to undertake the preparation of the articles on *Alcoholism*, *Opium Habit*, *Toxic Neuroses*. See page 7. The MS will not be expected before October, 1882, so that ample time exists for the preparation of the articles.

Pray send me a half-rate night telegram at my cost.

Ten months later—September, 1882—PEPPER wrote as follows to CLEVINGER:

In answer to your request I would state in confidence, that as your articles form part of the last volume of the *System of Medicine*, I can allow you until March 1st, 1883, on or before which time it is essential I should receive them.

This shows that CLEVINGER had accepted PEPPER's offer, but desired an extension of time for



WILLIAM PEPPER

his articles. Then the new time arrived, but CLEVENGER's manuscripts were not on the way to Philadelphia. In the meanwhile, however, he had seen PEPPER, and told him what valuable material he had on alcoholism. During June, 1883, PEPPER wrote to CLEVENGER:

After you left I reflected on what you had said about your valuable material on *Alcoholism*. Would it not suit you better to write that article and the one on *Toxic Neuroses* from mineral substances?

This would enable me to get Dr KANE of New York to write up *Opium*, *Chloral*, *Tea*, etc., and he could probably make a very good companion article for yours. If it suits you as well, it will suit me better. Please write me at once. You could have until April 1st, 1884, to complete your MSS.

But it seems CLEVENGER was unwilling to relinquish any of his topics, for tho he had not done one, he believed he could complete all. In the following month—July, 1883—PEPPER was supposed to be abstaining from work at Newport, but evidently he took a supply of postage-stamps with him. CLEVENGER, who was at Dunning, received this letter of explanation and congratulations:

That is right. I will give you for *Opium* and *Toxic Neuroses* till April 1st, 1884. I am glad you antici-

pate a trip thru those regions, and hope you add whatever valuable information you may acquire on these subjects. I congratulate you on being so situated that you can look forward to steady scientific work. The authorities are certainly to be warmly applauded.

Another spring arrived, but CLEVINGER's articles did not, and on the twenty-fifth of May, 1884, PEPPER sent CLEVINGER a note which was more categorical than congratulatory:

Since our meeting the first volume of our *System of Medicine* is being pushed rapidly thru the press. I must now know just when to expect the manuscript for the three latter volumes. I write to ask you to favor me by return mail with a line stating exactly what you are preparing for me, when I may count upon the manuscript without fail, and how many pages it will make.

All this was too definite for CLEVINGER; harassed with a variety of plans, and wrangling with MIKE McDONALD's gang, he was in no state of mind to prepare monographs for America's first *System of Medicine*—and at the eleventh hour he told PEPPER so. PEPPER may have been annoyed, but he replied with equanimity:

It would have been easier for me had you notified me of your inability to prepare your articles as soon as

you became convinced of it. I shall, however, immediately secure some successor, tho I am sorry we shall not have you among our list of authors.

So the final volume appeared, without CLEVENGER's contributions, but with gratifying words by WILLIAM PEPPER. In the valedictory preface, he gave the date of publication of each volume, and added these comments:

In view of the delays inevitable in large and complicated literary enterprises, such unusual punctuality reflects credit alike on the zeal of the contributors and the energy and resources of the publishers. The duties of the Editor have been lightened and rendered agreeable by the unvarying courtesy and cordial cooperation of all connected with him in the undertaking; and he has been amply rewarded by the realization of his hopes in the favorable reception accorded to the successive volumes by the profesison on both sides of the Atlantic. The plan of the work has been strictly adhered to, and the articles promised have been furnished without exception, altho in a very few cases circumstances required a change in the authorship. . . .

In conclusion, the Editor feels that it is a subject of congratulation that thru the combination of so many leading members of the profession it has been rendered possible to present in this work, for the first time, the

entire subject of practical medicine treated in a manner truly representative of the American School.

In CLEVINGER's place, PEPPER secured the distinguished JAMES CORNELIUS WILSON, who contributed the chapters on *Alcoholism, The Opium Habit and Kindred Affections, and Chronic Lead-Poisoning*; these essays do not betray the circumstances of their origin, for tho conceived in haste and brought forth under stress, they are choice in language and rich in scholarship. Several years later, CLEVINGER's articles on *Alcoholism and Morphinism and Other Addictions*, appeared in the second volume of his *Medical Jurisprudence of Insanity*, but both in diction and in information, they are less meritorious than WILSON's.

CLEVINGER's absence from PEPPER's *System of Medicine* was like staying away from a family reunion, for many of his friends were represented in its five thousand octavo pages: JAMES NEVINS HYDE wrote on variola, varicella, and erysipelas; H. D. SCHMIDT wrote on dengue and contributed to the diseases of the nervous system; JOSEPH LEIDY wrote a treatise on intestinal worms; HARRISON ALLEN wrote on diseases of the nasal passages; E. C. DUDLEY wrote on dis-

placements of the uterus; E. C. SEGUIN wrote on the general semeiology of the nervous system; and CHARLES K. MILLS and E. C. SPITZKA also contributed generously to the neurological volume.

CHAPTER VIII

FRIENDS IN NEW YORK

HAD PEPPER edited a *System of Surgery* in the eighties, he would probably have enlisted the services of that rising young surgeon, ROSWELL PARK. Dr PARK was born in Connecticut, but received his academic education in the Racine College of Wisconsin, and his medical training at the Chicago Medical College. When CLEVINGER matriculated at this institution, PARK, altho nine years CLEVINGER's junior, was already a member of the faculty, in the department of anatomy. Later, he lectured on surgery at the Rush Medical College.

CLEVINGER and ROSWELL PARK frequently met at the Chicago Biological Society, of which PARK was secretary. One of the mimeographed announcements which PARK sent to the members has been preserved:

The regular meeting of the Biological Society will be held Wednesday, May 5th, 8 p. m. at the Tremont House. Dr P. S. HAYES will report a Case of Exoph-

thalmic Goitre—fatal. The Secretary will exhibit a case of the same disease,—and also report three Unusual Cases of Poisoning. Dr CLEVENGER will report a Case of Poisoning from the External Use of Corrosive Sublimate. The Committee on the Deleterious Action of Glucose as an Adulteration will report.

In 1883—the central date of this narrative—EDWARD MOTT MOORE, one of the celebrated surgeons of the day, resigned his chair at the Buffalo Medical College, which immediately appealed to MOSES GUNN—Chicago's surgical overseer—for a successor. Professor GUNN suggested ROSWELL PARK, then in his thirty-first year, and both PARK and the College accepted the offer. However, when the new professor arrived in Buffalo, he found this chilly welcome in the pages of the *Buffalo Medical Journal*:

Professor MOORE's resignation is a loss to the profession of this city as well as to the College. It is but fair to say of him that he is recognized as the ablest professor of surgery in this country. We learn that Dr ROSWELL PARK of Chicago has been appointed in the place thus vacated. We fail to ascertain, after repeated inquiries in surgical circles, that the new appointee brings to this responsible position any extensive experience or reputation.

In the light of subsequent events, these caustic comments are amusing, for ROSWELL PARK became Buffalo's big man, looming like a colossus above his colleagues, as BYRON ROBINSON did at the Toledo Medical College. Besides being president of such professional organizations as the American Surgical Association, and the Medical Society of the State of New York, and director of the New York State Cancer Laboratory, he was president also of the Philharmonic Society, and—what was more substantial—of the Spencer Lens Company.

PARK was the author of a text-book on *Modern Surgery*, and in addition to technical contributions, he delved into medico-historical fields, writing various essays, and compiling an *Epitome of the History of Medicine*. As a writer he possessed no special talents, and his medico-historical work is like that of the Boston surgeon, JAMES GREGORY MUMFORD—worth while, but not notable.

In 1887, MOSES GUNN rested from his labors, and the chair of surgery at Rush Medical College stood empty; but soon it was filled by CHARLES THEODORE PARKES, a man whose boundless enthusiasm for operative surgery was fostered by his unusual physical strength. Pro-

fessor PARKES was a pioneer investigator of gunshot wounds of the intestines. He would anesthize dogs, shoot them several times in the belly, then perform laparotomy, followed by closure of the perforations—and ‘the number of recoveries in his animals,’ says J. H. ETHERIDGE, ‘astounded the medical profession, and led to further experiments in all parts of the world.’ Huge of limb and heavy, but carrying himself with the grace of the all-around athlete and sportsman, PARKES moved like a ruddy-faced giant among the diminutive nurses and assistants of his clinic. Death seemed far off from that magnificent physique, but in 1891, several months before he reached his forty-ninth birthday, he was stricken by the most sudden, silent, subtle murderer known to medicine—Pneumonia.

That same day, ROSWELL PARK received this telegram from Professor ETHERIDGE:

PARKES died this morning. Can I present your name as his successor? Biggest place in America today.

It was a critical moment for ROSWELL PARK. Compared with the Rush Medical College, the medical department of the University of Buffalo was a place of minor importance. PARK carried

DR. ROSWELL PARK

*Has leave to announce that he has accepted the Chair
of Surgery in the Medical Department of the University
of Buffalo, and will consequently remove to that city
during the latter part of August*

Chicago, July, 1883.

Dear Doctor.

*Will you favor me with a copy
of your paper on the Thyroid & Thymus
Glands. - if you have one to spare, and
oblige.*

Yours Truly

R. Park.

ROSWELL PARK'S ANNOUNCEMENT

of his removal to Buffalo, containing his request for a copy of CLEVINGER'S
paper on the thyroid and thymus.

this telegram around with him, and showed it to certain parties. He said nothing about Buffalo's lesser reputation, but he hinted that unless more adequate equipment and new buildings were forthcoming, he would deem it expedient to answer the telegram in the affirmative. Happy is the man whom an institution fears to lose. PARK was assured that his desires would receive prompt attention, and he decided to stay where he was. But ETHERIDGE was not easily balked, and the wires from Chicago to Buffalo waxed hot with his telegrams. But in this instance his persistence was of no avail, and his final telegram said:

My heart is broken. We will have you in a few years. I never abandoned anything more reluctantly. I love you very much.

So ROSWELL PARK remained in Buffalo, and the passing years brought him increasing respect and reputation. When WILLIAM MCKINLEY was wounded there, all eyes turned to Dr PARK; he became a national figure, and it was an undying disappointment to him that he was unable, in spite of all his efforts, to save the President's life. On the twenty-fifth anniversary of PARK's professorship, a banquet was arranged in his

honor, and the men who attended were ample testimony to the position which ROSWELL PARK had reached, for DENNIS and BREWER came from New York, and CRILE from Cleveland; Chicago sent BILLINGS and BEVAN, and RICHARDSON journeyed from Boston; out of the northwest came MAYO, and from the south, MATAS and WELCH.

The present writer claims to be the champion symposiumist of America, having conducted and published symposiums on humanitarians (1908), euthanasia (1913), sterilization of the unfit (1914), drugs (1916), obstetrical abnormalities (1916), and the medical profession (1917). None of these collections of diverse opinion exhibited more dissimilitude than the *Symposium on Euthanasia*—Shall the state permit science to put a painless end to a hopeless disease? As usual, the question aroused heat and hysteria; most of the physicians proclaimed it their duty to keep life alive, no matter how painful and undesirable that life is to its possessor, and no matter how persistently and piteously the incurable or deformed sufferer begs for the waters of Lethe. But others came to the defense of euthanasia, arguing that we have no right to force life upon a patient when that life is one con-

tinuous round of agony, and that it is the profession's duty to alleviate pain and not to prolong death-tortures. Among those who took this view was ROSWELL PARK, whose contribution contained the sensational confession that he not only believed in euthanasia, but practised it:

I know that others have assumed the responsibility, which I have myself taken in more than one case, of producing euthanasia, when, in the terminal stage of life, a patient was suffering the tortures 'of the damned,' and has pleaded for a method of escape, the pleadings being seconded by the family. Under these circumstances I think that to administer a lethal dose of morphine or chloroform is to 'do as one would be done by.' I have been told by high legal authority that to do this is equivalent, in the eyes of the law, to committing murder. Nevertheless no one need allow his conscience to trouble him on this score. I am positive that it is one of the kindest acts that a medical man can ever perform.

For this enlightened standpoint, PARK was deluged with a shower of abusive epithets, and altho he was a minister's son, he was accused of violating the precepts of religion. ROSWELL PARK invariably side-stepped theology; in his letter to CLEVENGER, dated July, 1894, he says:

DR WILLIAM A. HAMMOND
CONSULTATION HOURS FROM
9 A.M. TO 2 P.M.

43 West 54th St. New York

Aug 15th
1880

My dear Father:

Will you go
to Manhattan Beach
this afternoon with
me? If so, meet
me at the foot of
22nd St. North River
at 3 P.M. Yours sincerely
W. A. Hammond

LETTER FROM WILLIAM A. HAMMOND

I am very much obliged to you for writing to me as you did about that book. It was one which my Father published not long after I was born; and, had I not several copies now on hand, I should be desirous of securing the one of which you write. As it is, I have no use for it, and can only thank you warmly for your kindness in writing to remind me about it. I am myself too deep in medicine to delve in theology; and, whatever else you may see from my pen, you will see nothing that deals with eschatology or anything of that kind.

I have read and often recommended your book upon the spine, and have wondered many times what had become of you, and it has done me good to get your letter. In your many polemics against corruption and abuse in asylums and hospitals, I have watched you with envious eyes, and have wished you success many times when you did not realize it.

I trust that you may even yet come out on top and maintain, as you always will, the honor and dignity of our profession.

Among CLEVENGER's papers we find this hastily-scribbled note, 'Won't you go to Manhattan Beach this afternoon with me? If so, meet me at the foot of 22nd St., North River, at 3 p. m.,' from one of the most interesting personalities of the time,—WILLIAM ALEXANDER HAMMOND. Born in Maryland, and graduating

in New York, HAMMOND next spent some months in Philadelphia and Maine, then joined the army where he served for over a decade, retiring in his thirty-first year to return to Maryland as professor of anatomy and physiology in the university.

But the following year there was war, and HAMMOND resigned his professorship to re-enter the army. Armies have inflexible rules, and inflexible rules are invariably stupid. Because HAMMOND had left the army in 1859, he lost his rank; his eleven years of service did not count, and he was placed at the foot of a roll of inexperienced assistant surgeons.

But he was not to remain inconspicuous long. A vigorous Surgeon-General was the crying need of the hour. The nation's medical department, organized to look after fifteen thousand men, suddenly found itself confronted with the task of taking care of a million. A consultation was held between the Secretary of War, the redoubtable EDWIN McMASTERS STANTON, and the Sanitary Commission, composed of such distinguished physicians as CORNELIUS R. AGNEW, WOLCOTT GIBBS, and WILLIAM HOLME VAN BUREN. 'Well,' asked STANTON, 'whom would you suggest?'—which was extraordinary gra-

ciousness on his part, for this iron-willed man rarely allowed suggestions. The members of the Sanitary Commission glanced thru the list, and VAN BUREN put his hand on the name of HAMMOND, saying, 'That is the man whom the Sanitary Commission would like to have. I know him, and served with him, and the profession has confidence in him.'

VAN BUREN's finger toyed with destiny that day, for the surgeon-generalcy has ever been a slippery place. The first who climbed to it, BENJAMIN CHURCH, slipped into oblivion and disgrace. The second, the famous JOHN MORGAN, was soon dismissed by Congress, and tho he published a *Vindication*, and was acquitted by a later court of inquiry, he never recovered from the ignominy. His successor, WILLIAM SHIPPEN, Jr, was also acquitted—but not before he faced serious accusations at court martial.

HAMMOND, however, was not an historico-medical student—altho he was so enthusiastic about SERVETUS that he intended to write a book, burning JOHN CALVIN in ink. But the fate of his early predecessors did not deter him from accepting the surgeon-generalship—with the rank of brigadier-general. HAMMOND was large and loud—when he entered a room, he filled it. He

looked splendid in his uniform. He began to work at once. He found that the more prevalent malaria grew, the higher was the price of quinine, so he announced that the Medical Department would manufacture its own quinine—and down came the price of quinine. HAMMOND created the Army Medical Museum, projected that magnificent undertaking, the *Medical and Surgical History of the War of the Rebellion*, and suggested the establishment of the Surgeon-General's Library, but here he was balked by Secretary STANTON, who flatly declared such a library unnecessary.

In fact, STANTON didn't like HAMMOND—just as RICHELIEU didn't like GROTIUS. At every step, HAMMOND found himself opposed by this grim-lipped statesman whose arbitrary spirit, violent temper and bitter tongue were equalled only by his efficiency, courage and honesty. So these two masterful men clashed, but a surgeon-general was easy game for the autocrat of American politics who drove even LINCOLN to despair, who came within one vote—ah, how much history has hinged on one vote—of having JOHNSON impeached, and who exchanged blows with mighty SHERMAN. There seems to have been something mysterious in HAMMOND's connexion with

a million horse-blankets—or was it with drug-supplies on which his brother-in-law grew rich? The Secretary of War put his machinery in motion, and the court martial pronounced HAMMOND guilty, deprived him of rank, and dismissed him in disgrace. Whether HAMMOND was blameless in the matter of these horse-blankets, or whether he really tried to indulge a bit in the well-known American game of ‘graft,’ we cannot venture to say, but it may be conceded that his summary removal was due chiefly to STANTON’s enmity.

A weaker man would have succumbed to these ‘bludgeonings of chance,’ but HAMMOND came to face life in New York. His colleagues believed in him, and he was appointed lecturer in neurology at the College of Physicians and Surgeons; within a short time he became the first professor of neurology at the Bellevue Hospital Medical College, but resigned, after some years, to accept a similar chair at the New York University Medical College. He was one of the principal founders, in 1882, of the New York Post-Graduate Medical School and Hospital, where he continued to teach his specialty with considerable success, and where his son, GRAEME

MONROE HAMMOND, is professor of mental diseases until this very day.

HAMMOND was not the sort of man to go thru life tamely with a stigma hanging over his head. He besieged the senators until Congress surrendered to his demand for a review of the court-martial proceedings which had deposed him; he presented a volume of evidence in his defense, and the result of this later inquiry was favorable to HAMMOND; like the surgeon-generals of the revolutionary period, he was vindicated, being restored to his rank of brigadier-general on the retired list—after fourteen years of disgrace. If this was an act of Justice, then Justice needs the services of an orthopedist, for she is painfully lame.

HAMMOND was a voluminous author, and as far back as 1863, his *Physiological Memoirs* gained him a reputation. Among his numerous volumes are a *Treatise on Hygiene*, *Lectures on Venereal Diseases*, *Sexual Impotence in the Male*, *Treatise on Diseases of the Nervous System*, and exposures of spiritualism and similar maladies. In 1883, both HAMMOND and SPITZKA published a work on *Insanity*, SPITZKA's being the superior; these were the first systematic treatises on insanity published in Amer-

ica, and Dr CLEVINGER received an autographed copy of each. In after years CLEVINGER donated HAMMOND's copy to the Atlantic City Medical Library, and presented SPITZKA's copy, with copious marginal notes, to the present writer. Had HAMMOND produced fewer volumes, probably more of them would have survived. An author who does not practise birth-control with his literary progeny, dooms most of them to early extinction.

Of course, the versatile HAMMOND had his hand in medical journalism. He was the originator and editor of the 'Maryland and Virginia Medical Journal,' and of the quarterly 'Journal of Psychological Medicine and Medical Jurisprudence,' and was one of the founders and editors of the 'New York Medical Journal.' Thus, for an important post-graduate school and an important professional journal, New York is largely indebted to the efforts of WILLIAM ALEXANDER HAMMOND.

Unhappily, HAMMOND's boundless energies could not be confined by physiological, psychological, and neurological themes. Now and then he would desert these erstwhile favorites in order to woo literature—and instead of keeping these indiscretions hidden, he published them. It is

no exaggeration to say that every time Dr HAMMOND became father of a novel, he was guilty of a literary felony. His novels are horrible stuff, whose bad taste lingers on for months, and never entirely disappears. Much bad fiction has come our way, but the three worst novels we ever read were produced by physicians: *The Perverts*, by Dr WILLIAM LEE HOWARD; the *Exploits of a Physician-Detective*, by Dr GEORGE FRANK BUTLER; and *Lal*, by Dr WILLIAM ALEXANDER HAMMOND.

HAMMOND had more assurance than modesty in his make-up, and he confidently believed that in time he could solve all medical problems—but he didn't. He was, however, a sagacious investigator, and had he not been endowed with administrative ability—always a dangerous gift for a scientist—and had he stuck more faithfully to his laboratory, his fame would be more secure. Among HAMMOND's early work was an investigation of the arrow and ordeal poisons, in collaboration with SILAS WEIR MITCHELL. Throughout his career, in carrying on his researches, HAMMOND experimented upon himself. When the oto-ophthalmologist, DANIEL BENNETT ST JOHN ROOSA—whose hybrid name is due to his descent from Dutch, French and English set-



William A. Hammond

tlers—informed HAMMOND that there were doubts as to the effects of quinine upon the fundus oculi, membrana tympani and auditory nerve, HAMMOND insisted upon coming to Professor ROOSA's office and being dosed with all the quinine that his system could tolerate. Oddly enough, in the eighteenth century, there was a WILLIAM ALEXANDER who may be regarded as one of the founders of pharmacology, for he experimented upon himself with drugs until they very nearly killed him.

After his vindication, HAMMOND removed to Washington, where he conducted a sanitarium. He was one of the most conspicuous of contemporary neurologists, being widely consulted and extensively quoted. He was the first to describe mysophobia, and athetosis is known as Hammond's disease. All in all, he was a type of the successful American. His children were also successful, his son becoming, as we previously mentioned, professor in the post-graduate school, and his daughter becoming the Marquise CLARA LANZA.

LEIDY's infatuation with worms, COPE's early interest in salamanders, and HARRISON ALLEN's fondness for bats, were matched by BURT GREEN WILDER's partiality for spiders. At the age of

fourteen, his study of spiders brought him an encouraging nod from the elder AGASSIZ. During the Civil War, he was surgeon to the Fifty-fifth Massachusetts Infantry—the colored regiment—but his devotion to spiders did not cease, and while stationed on Folly Island, in South Carolina, he discovered a ‘large and handsome spider’—named *Nephila Wilderi* by McCook—from which, while alive, he reeled 150 yards of yellowish silk, and which gave him a taste of fame.

But already, other creatures had begun to attract his attention: at the age of eighteen, working with JEFFRIES WYMAN, he began to compare the skull of men and apes; at twenty, he published his *Contributions to the Comparative Myology of the Chimpanzee*; and later, under AGASSIZ, he studied the anatomy of sharks and rays.

In the autumn of 1867, when Cornell University opened its doors, the enlightened ANDREW D. WHITE appealed to ASA GRAY and LOUIS AGASSIZ for a teacher of natural sciences. They recommended WILDER, who accordingly was appointed professor of physiology, vertebrate zoology and neurology. His laboratory was in a basement—where tools were later kept—and he

was his own preparator, assistant, and stenographer, but he was only twenty-six, and his scientific ardor was intense.

Twenty-five years later, Professor WILDER was the recipient of the *Wilder Quarter-Century Book*, which was probably the first of American *Festschriften*. All its articles were written by former pupils who had risen to eminence, for WILDER had trained such men as DAVID STARR JORDAN, LELAND OSSIAN HOWARD, THEOBALD SMITH, HERMANN MICHAEL BIGGS, and SIMON HENRY GAGE.

The first time we saw Professor WILDER, it was under less triumphant circumstances. He was scheduled, at the New York Academy of Medicine, to lecture to the ill-named American Society of Sanitary and Moral Prophylaxis on certain phases of the venereal peril. He arrived with his statistics, but found to his consternation that there were women in the audience. WILDER had seen women before—he was the father of RUTH and MARY and BERTHA—and the women whom he now saw before him, were, with a few exceptions, either physicians or nurses, but they looked like other women, and to speak of chancre and gonorrhea in their presence, was more than WILDER could do. He made a few attempts,

FROM
Burt G. Wilder, M. D.,
PROFESSOR OF
Physiology, Comparative Anatomy, and Zoology,
CORNELL UNIVERSITY.

Ithaca, N. Y., Aug 13 1880

Dear Doctor: -

Your letter
pleases me, and
I will write in
full in a few
days.

Yours truly

B. G. Wilder

P.S. Drop a card saying
whether you have my
paper on Brain of
Chimæra.

POSTAL CARD FROM BURT G. WILDER
showing his propaganda for the metric system

To make the centimeters familiar the Metric Bureau, 32 Hanover St., Boston, prints this without charge.

held up his awful statistics in dismay, and sat down. There is no simplicity to equal the unworldly innocence of an old scientist. While the professor had buried himself in his laboratory at Ithaca, busy with cat's brains, sociology had been advancing, and venereal disease and prostitution had become fashionable topics of conversation, indulged in by ladies' clubs and ministers seeking popularity.

It should not be supposed, however, that WILDER was usually hesitant in expressing his opinions; being a scientist and not a politician, he frequently found it necessary to raise his voice on the unpopular side. During our first year of editorial life, we raised a transient tempest by writing *The Negro in American Medicine*, in which we claimed that the medical profession of America, instead of enriching anthropology by impartial and objective studies of the negro, was pandering to the brutal prejudices of the mob, and attempting to rival the infamies of a THOMAS DIXON. After turning the searchlight on the physician's hypocrisy in this matter, we concluded by declaring that there is a shameful chapter in American medicine, and it is headed: The Negro. The most glorious exception to this rule is BURT GREEN WILDER. He asserts

that his army and university experiences have often tempted him to say, 'Yes, a white man is as worthy as a colored man—provided he behaves himself as well.' When that sensation-springing novelist, Mr OWEN WISTER, seeking to wrap himself in the cloak of popularity, made startling and dishonest comparisons between the skulls of the negro and the ape, Professor WILDER exposed his errors with such facts and persistence that the would-be breeder of race-prejudice—altho he claimed never to have heard of WILDER before—was compelled, much against his inclinations, to modify his statements. WILDER's monograph on *The Brain of the American Negro*, coming from one of the foremost neuro-anatomists of modern times, sounds a death-knell to the white man's conceit, and is a trumpet-call to a capable but downtrodden race.

For many years WILDER not only advocated the simplification of neuro-anatomical nomenclature, but supplied a new nomenclature, so it could be compared with the old. WILDER was always a scholar, and, on most occasions, a gentleman, but when he heard the resolution, 'that members of this Association should defer to general usage,' he gave way to a passionate denunciation of that universal commander:

Of all so-called leaders, the most incapable, blundering and dangerous is General Usage. He stands for thoughtless imitation, the residuum of the ape in humanity; for senseless and indecorous fashions, the caprices of the demi-monde; for superstition and hysteria, the attributes of the mob; for slang, the language of the street hoodlum and of his deliberate imitator, the college 'sport;' and finally in science, for the larger part of the current nomenclature of the brain. As scholarly anatomists it is at once our prerogative and our duty to scrutinize and reflect, and to deal with the language of our science in the same spirit and with the same discrimination that we maintain in regard to the parts of the body and the generalizations concerning them.

The sterilization of defectives, the simplified spelling, the use of chloroform as a lethal agent for condemned animals and criminals, the abolition of fraternities and intercollegiate athletic contests, the removal of the appendix from all young children—these are a few of the reforms which WILDER has advocated with little success.

At the age of seventy, after forty-two years of splendid service at Cornell, Professor WILDER retired. He is one of the finest representatives of American science, but the man in the street does not know him, and neither does that impos-

ing authority, the *Encyclopedia Britannica*, whose eleventh edition devotes many columns to some of our loud-mouthed politicians,—who added nothing to the sum of human knowledge,—but contains not even a casual reference to the foremost makers of American medicine—the JACKSONS, the WARRENS, the BIGELOWs, HORNER, DRAKE, NOTT, GROSS, and MARION SIMS. But tho the *Encyclopedia Britannica* knows him not, WILDER has been quoted by another British authority—CHARLES DARWIN. It was THACKERAY who said that to have your name mentioned by GIBBON was like having it written on the dome of St Peter's, for pilgrims from all the world admire and behold it. Similarly, the student of science may say that to have your name inscribed in the *Descent of Man*, is to write it down for farthest posterity.

CLEVENGER is indebted to WILDER for adding *Clevenger's fissure* to neurological nomenclature; these two neurologists became personally acquainted at the Boston meeting of the American Association for the Advancement of Science, where WILDER read three papers on the structure and nomenclature of the brain, with special reference to that of the cat, and CLEVENGER read his plan of the cerebro-spinal nervous

system. WILDER, in his October, 1880, letter to CLEVENGER, discusses the latter's famous School of Biology—which never opened its doors. WILDER devised the correspondence-slip, in 1884, and on August sixteenth of that year, wrote to CLEVENGER:

I inclose a slip bearing a question, the answer to which may be written on it. For some time past I have felt that much scientific correspondence might be profitably carried on in this 'slip-shod' way; what do you think?

I wish you could attend the coming meeting of the A. A. A. S., and present some paper on the brain as well as discuss mine.

The slip which WILDER enclosed bore this query:

Do you still hold your view as to the morphological significance of the cerebellum, especially in view of SPITZKA's recent article in *Record*? The evidence of it does not appear to me either in your paper or in the preparations I have made.

CHAPTER IX

LETTERS FROM SPITZKA

SINCE this slip still remains attached to WILDER's note, we do not know whether CLEVINGER ever answered the question, but it is certain he was interested in SPITZKA's view. We now approach the longest-lasting and most important friendship which CLEVINGER ever formed. EDWARD CHARLES SPITZKA was born in New York, in the latter part of 1852, and thus was nearly ten years younger than CLEVINGER. At the age of twenty-one he received his M.D. from New York University, and as his father was a successful jeweler, the young doctor could afford to do post-graduate work at Leipzig and Vienna. At Vienna he came under the influence of the neurologist MEYNERT, and the author of *Diseases of the Fore-Brain* never had a better pupil.

But THEODOR MEYNERT was not the only force that swayed SPITZKA in those days. Since the New Yorker was away from home, he had to

eat in a boarding-house—and there he met her. She was of the homespun variety, capable of making a devoted and durable wife. Of course her name should have been GRETCHEN, but it happened to be KATHERINE WATZEK; however, it was soon changed to Frau SPITZKA. So Dr SPITZKA returned to New York, carrying in his pocket MEYNERT's certificate and a marriage-certificate. It was not a happy home-coming. The jeweler thought Mrs SPITZKA was not flashy enough to wear his diamonds in society, and in wrath he turned his son out of doors. Hard times followed; Dr SPITZKA had been brought up as a scholar, not as a business-man, and had not yet learnt the trick of making money. Once he came into possession of an elephant's head, and worked thruout the night to get the brain out of the skull, but in the cool of the morning he found to his despair that he did not have a coin for alcohol. He walked the streets in tears, and before he obtained the twenty-five cents, the elephant's brain had spoiled. ELIZABETH BARRETT's father never forgave his daughters who married, but a reconciliation occurred between the elder and younger SPITZKA.

The friendship between CLEVINGER and SPITZKA began in 1879, when CLEVINGER sent

SPITZKA a cordial appreciation of the latter's *Architecture and Mechanism of the Brain*, which was appearing serially in Professor JEWELL's journal. It was certainly a masterly piece of work, and SPITZKA was only twenty-seven at the time. JEWELL himself broke his usual editorial reserve to praise his brilliant contributor:

We would no longer defer calling the special attention of our readers to the articles of our talented young contributor, Dr E. C. SPITZKA, of New York City. We have no hesitation in saying that, as a whole, they have not been equaled by any series of articles that have appeared on the same subjects, in the whole range of American medical literature. Whether we consider the vast amount of labor they represent, the breadth and accuracy of his information respecting the best literature of his subject, or the talent exhibited for critical interpretation of facts and results, we think our thoughtful readers must acknowledge with us, that their author is entitled to no ordinary commendation.

Even the abuse—and it was plentiful—which was showered upon SPITZKA during his career, was to his credit. For example, J. J. ELWELL's fulmination in the *Alienist and Neurologist*, exposes the mental calibre of one class of SPITZKA's

opponents—vacuousness, filled only with rancorous prejudice:

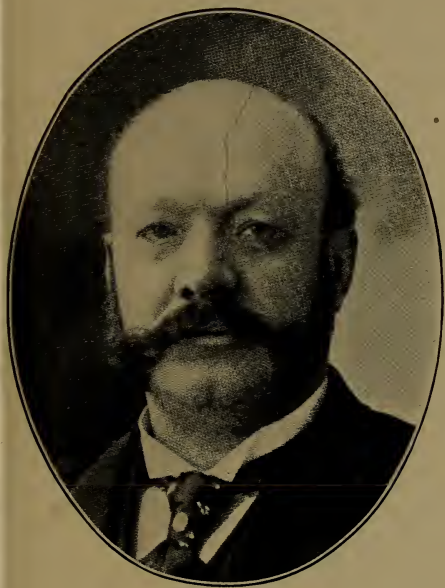
SPITZKA is a weak echo of a class of modern crazy German pagans, who are trying, with what help they can get in America, from such scientific alienists as he, to break down all the safeguards of our Christian civilization, by destroying if possible all grounds for human responsibility, putting forth the cold vagaries of agnosticism and nihilistic utilitarianism—accepting nothing beyond the reach of uncertain human experiment and his own fallible reason—reconciling the irreconcilable factors of life and human existence.

SPITZKA rose rapidly to the top of his profession, becoming at an early age, president of the New York Neurological Society, professor of medical jurisprudence and of the anatomy and physiology of the nervous system at the New York Post-Graduate School of Medicine, and—unfortunately for his repose—professor of comparative anatomy at the Columbia Veterinary College. This connexion with a veterinary institution gave his enemies a hint: they spread the report that SPITZKA was a horse-doctor—and obtuseness and viciousness accomplished the rest. No amount of explaining that SPITZKA was simply teaching comparative anatomy—the noble

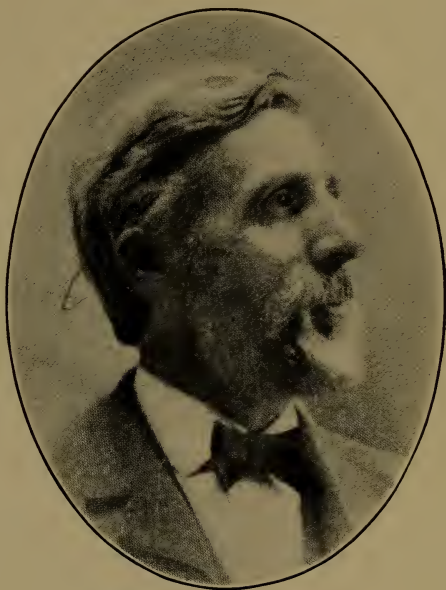
science which occupied the best hours of a HUNTER, a HUXLEY, a HAECKEL—sufficed to wipe out the stain. In courts of law, where he was called to testify as an expert, he was apt to hear the question, 'But you are a horse-doctor, are you not?' And the idea of a horse-doctor posing as an alienist was sure to bring a knowing smile to the brutish lips of ignorance.

SPITZKA finally grew tired of denying that he was a veterinarian, and on an unforgettable occasion, being irritated by the old question, 'But you are a horse-doctor, are you not?' SPITZKA turned upon his tormentor, and answered, 'In the sense that I treat asses who ask me stupid questions, I am.' Thus, SPITZKA, who laid no claim to the mantle of a humorist, added a classic joke to the annals of American psychiatry. While SPITZKA was being reviled in law-courts as a horse-doctor, he was being cited in the *Smithsonian Reports* as an outstanding authority on cerebral anatomy. But in the quiver of reason there is no arrow sharp enough to pierce the armor of stupidity. To the end of his days, this great scientist was dogged by the title of horse-doctor.

Whenever CLEVINGER came to New York, it was an interesting day for himself and SPITZKA;



E. C. SPITZKA



B. G. WILDER

not often could either of them encounter a companion who was willing to sit up all night discussing subjects in which there was no money. But they were not top-heavy, and did not take themselves too seriously. They mixed section-cutting with relaxation. They enjoyed Coney Island, and all its fakes. They often strolled thru Central Park, visiting the Zoo. They frequented the Aquarium, as SPITZKA was a great student of fish. They chatted in a summer-garden, over their beer and cheese. Once they went to the Bowery Theatre, cheap and tough. The thrilling melodrama dragged on past midnight, and the villain was still pursuing her, when the manager came upon the stage and announced in a sad voice, that the authorities compelled the theatre to close at that hour. Someone in the audience yelled, 'Hurrah for the authorities,' and the two neurologists were much amused.

As CLEVENGER was the elder, it was naturally taken for granted that he would die first, and on one occasion, while standing near an elevated station on Third Avenue, he remarked to SPITZKA: 'I don't see why you take brains out occipitally. I think the old method, cutting off the calvarium, is less apt to injure them.'

'I prefer the occipital method,' said SPITZKA, 'I do it nicely that way.'

'But when you take out my brain,' rejoined CLEVINGER casually, speaking like a true member of the American Anthropometric Society, 'I want you to do it by——'

'No,' insisted SPITZKA, 'I'll extract it occipitally,' and then began an argument as to how SPITZKA was going to remove CLEVINGER's encephalon, but suddenly seeing the comic side of this discussion, they broke into laughter and ran up the steps to catch an approaching train.

Friendship is based upon a subtle chemistry, for human beings are swayed by the law of opposites as surely as is the atom. CLEVINGER and SPITZKA were wholly dissimilar. CLEVINGER was an unsettled character, impetuous and unpractical, soaring high one day in exultation, and landing the next day in the ditch of depression. SPITZKA was more slow-pulsed, and we picture him walking along life's highway, steady, sober, his cane striking bottom every time. CLEVINGER was always poking his nose in the center of the universe, and appealing to everybody; SPITZKA stuck to his section-cutting, and addressed himself only to specialists. He made no appeals to the public, and only once did he write for the

general practitioner, and that was when he published his admirable *Manual of Insanity*.

Nevertheless, SPITZKA was a voluminous author, and altho most of his writings were technical, there is a splendid swing to his sentences, at times the true Spencerian sweep. Yet it was CLEVINGER who was the Spencerian; SPITZKA preferred WUNDT.

The relationship between SPITZKA and CLEVINGER was frankly that of teacher and pupil—but the younger man was the teacher. With the possible exception of SPENCER and DARWIN, no name appeared so frequently in CLEVINGER's work as the name of SPITZKA, but in SPITZKA's writings the name of CLEVINGER is not mentioned at all, unless we except some letters published in *Science*, and the preface to the second edition of his *Manual of Insanity*, where he gives CLEVINGER credit for aid received.

During his rare visits to Professor SPITZKA, CLEVINGER met a little SPITZKA, whose towering ambition in those days was to tear the covers from his father's bulky German periodicals. BURT WILDER called him the 'worthy son of an eminent father,' and at thirty EDWARD ANTHONY SPITZKA became the professor of anatomy at the Jefferson Medical College, and is known to a

host of students as the American editor of GRAY'S *Anatomy*. Yet it was not often that CLEVENGER was able to ascend the steps of 137 East 50th Street—a thousand miles stretch between Chicago and New York. But the two alienists corresponded enthusiastically, especially from 1880 to 1884, and it is our privilege to give some of SPITZKA'S letters to the world—that is, to that infinitesimal fraction of the world which will read these lines.

EDWARD CHARLES SPITZKA'S first letter to CLEVENGER, dated the eighth of December, 1879, refers to SPITZKA'S *Architecture and Mechanism of the Brain*, but deals largely with that nightmare of authors—typographical errors:

Your very welcome favor is received. It is very gratifying to know that my article has been of some service to anyone and coming from such a source, the commendation which you are so kind to bestow is of special value.

The word 'black' should be 'blank' and is so corrected in the reprints of which I will send you one with the next lot that goes out. The line (a) is omitted by the printer; it was present as a straight perpendicular in my original design.

Your kind offer to furnish me with certain brains is noted; should I get thru my present material I will

perhaps presume on your kindness to that extent. At present I have fine brains going to pieces because I have not leisure enough to utilize them properly. And one reason why I deferred the continuation of my article is that I expect to discover some points which should be introduced but which I prefer to confirm before so doing.

With the friendliest greetings to yourself as well as to Dr JEWELL.

P. S. There are other typographical errors, some of which I felt sure I had corrected or that were correct in the original proof.

So this was the opening of a friendship which sometimes flagged, and even wore itself out with the passing years, but nevertheless left pleasant memories. Even GILBERT and SULLIVAN had their misunderstandings, so let us not be surprised that CLEVINGER and SPITZKA finally drifted apart.

During August, 1880, CLEVINGER was in New York, staying at the Metropolitan Hotel, and on the twelfth of the month, SPITZKA sent him this letter:

Now that I have a little breathing time, I am going over my collection of brains ready for slicing, and while so doing laid to one side some specimens that may

be of service to you in your work on the Cornu Ammonis. If you will come tomorrow afternoon, say any time after two and before five (for we want daylight), I will show you things that will make your mouth water!

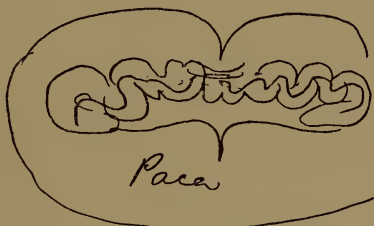
It is so rarely that I find anyone to talk to on this subject, that now that I have found a congenial spirit I find it hard to stop talking, and my diarrhea of words must vent itself on paper. I found that Paca brain, the specimen is something marvelous, and on cutting across an opossum's I find the most clear confirmation of the views which we both hold.

I had intended keeping back the figures of these relations till the third chapter of the *Architecture*, but as it will be a year before that comes out, will give you the chance to work up the subject from my specimens. All that I shall want credit for is the remarkable relation in the Paca. I found this two years ago and never published it, but it would be well to incorporate it in your paper.

So if you can, do not fail to come tomorrow. I have always considered the Cornu Ammonis the great primitive gyrus and the key to the hemisphere's homologies. In my first (preliminary) chapter on *Architecture and Mechanism* there is a figure showing the Cornu Ammonis to be limited to the dorsal aspect of the Corpus Callosum in a bat, of which I can demonstrate to you some representative sections.

Two months later, SPITZKA wrote:

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 of the views which are both held.
 I had intended keeping back the
 figures of these relations till the
 3^d Chapter of the Architecture, but
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 in your paper.



So if you can, do not fail to
 come tomorrow P.M. I have always
 considered the Comm. Ammonia the great
 primitive gyrus & the keys to the
 hemisphere homologues. In my first

LETTER FROM E. C. SPITZKA

Your kind card received. On condition that it does not interfere with BANNISTER, I am very willing that you should mention the matter you propose to Dr JEWELL. You know I am not very ambitious of formal honors, but I would take hold of the Department of Insanity and make it a feature of the *Journal* if JEWELL sent me the journals on Psychiatry which he receives. I am very much obliged to you for thinking of me.

I shall have a long article of one hundred pages or so in the January number, which will prove the best of my imperfect contributions; it represents the results of labors carried on for five years, and among other things deals with a matter which may interest you, the relation of convolucional asymmetry of the atypical kind to insanity.

Can you inform me what stereotyping costs per page in Chicago? If not, and you see JEWELL, jog him about it, as I asked him the question and have not yet been answered, probably because I have overwhelmed him with correspondence.

I hope you will continue your anatomical researches; of course such work is best carried on at leisure and slowly, and the 'Big Thing' which I trust will prove a success, should have its due share of your attention. What you *like* to do, that do; willing work always yields the best results.

How have you been getting on with your fish museum? do the specimens look well? what species have

you? Can I do anything for you in the way of casually harpooning a salt water species? Have you caught that 18-foot sturgeon yet?

By the twenty-ninth of October, SPITZKA felt sufficiently familiar with CLEVENGER to 'pitch in' into him:

I have received your paper on the Central Nervous System, and perused it with pleasure. It is on the whole a very suggestive and well written paper.

I regretted to note one very ambiguous feature. In your projection system you put down the external and internal capsule as homologues of the afferent nerves, and the crura as the efferent. Now both are but segments of one and the same continuous tract. If you had considered a part of this entire tract involving both segments as afferent and another as efferent you would have been anatomically and physiologically correct. In fact your first two segments could not be defended even theoretically. I felt bad over it, because the propositions of the paper generally are excellent.

Your 4th segment is not clear to me.

Are you certain that you have interpreted BIRDSALL correctly?

You know my habit of 'pitching in.' 'Him whom the Lord loveth he chastiseth.' I would not say this if I were not perfectly sure that you would receive the

criticism in the same spirit in which it was intended by me.

I trust you will not abandon your work on the Fish's Brain; there is nothing we regret so much in after years as time thrown away on undertakings once begun and not completed. I can sing a song to that tune myself and have learned a lesson. I trust you will resume what I consider will lead to important results after you finish your new matter.

In his letter of November eighth, SPITZKA told CLEVINGER what he thought of him as a scientist:

As to Drs JEWELL and BANNISTER, I agree with all you say. I have few as firm and disinterested friends in the United States. Dr JEWELL is correct in assuming that he has been of assistance to me. Without his *Journal* I might have been crushed by the Asylum and New York Medical Rings, and quite aside from actual support, his word of encouragement, dropped at the right time, has done me more good than all the adulation (real and pretended) received since. He has been of greater service to me in pointing out my faults, and I have not had a juster critic. On one occasion he devoted two hours in New York to giving me advice.

People ask me who CLEVINGER is, and it may interest you to know my objective opinion, both of yourself and of your article: 'Dr CLEVINGER is a very enthusias-

tic worker, who *if* his other engagements will permit him to stick to the researches he has started on, will undoubtedly accomplish good results. His present article is too speculative in character to be criticized objectively; it exhibits suggestiveness and ability in its theories however, and these qualities if combined with objective study will place him in the front rank of original workers.

I still think that your frontal and occipital lobe business stands on the empty air, even with the present corrections, while the facial thalamus theory which can be better defended is not supported by any observations.

I am getting to be an old stager, and in our future correspondence about such points as you may write about, will gladly put my hints in an available form, so that at least I shall have no occasion for after criticism.

As to tools, I would say that I can take out any bony fish's brain with nothing more to aid me than a common pocket-knife. Your fish must have been too stale; the brain softens very rapidly after death. Don't get frozen fish.

Your German is very fair. The concluding clause in English reminds me of MARK TWAIN'S remarks about his fine war map, where he changed the course of the river Rhine because his 'graver' had slipped in wood cutting; he would rather have changed the course of the Atlantic Ocean rather than lose so much work.

In his confidential letter of November thirteenth, SPITZKA discusses the most important of all subjects—money. The party in 'financial straights' was Professor JEWELL, who borrowed a thousand dollars from CLEVINGER, and could not repay it for years. If JEWELL had hunted for advertisements for his *Journal* as assiduously as he sought for valuable reading-matter, his affairs would have been less precarious. But such is the world in which we live:

Such matters as you mention are apt to make one feel in reading them as if a sudden discord had taken place in the midst of a symphony. I know from due experience what you mean when you say you ought not to be troubled by business matters. It renders one unable to concentrate one's self on a scientific subject, to devote that attention to it, which is a *conditio sine quâ non* of good deliberate thinking and writing. It is not the mere loss of cash or its prospective gain that ever depress or elevate the spirits of the right kind of men, but the privations they may cause or the good we can do with it.

The man who has his whole depending on what he can make from day to day, or whose chances being as yours do on the solvency of some one else, is torn and agitated to such an extent as to wish that he were rather at some fixed meaner (?) occupation with a

regular tho small income, and let scientific aspirations go to the—wall! I have lost my best years in fretting on similar grounds, and my irritability, which probably will remain a constitutional feature, was worst at that time, and there it originated. I suppose I was never cut out to become insane, but from my individual experiences regarding worry from financial causes, I have obtained a pretty fair idea of how a perfectly sound brain may become unsettled from such causes.

I am surprised that the party you mention should be in financial straights to the extent of borrowing from a younger man. But I suppose it is a temporary matter, and think it may be connected with the expenses of the *Journal*.

May you not yourself be at fault unconsciously in this matter? I have an impression that either of one of the gentlemen wrote me that you had made considerable at some business or other, and possibly your debtor does not hesitate to borrow since he has an idea that you can afford to lend, more readily than is the case, and would refrain from borrowing further, if he knew the real state of affairs!

I am indebted to you for your efforts, you know how I feel regarding the matter, and I can afford to have it put off. My literary engagements are horrible. I publish a prize essay in the April number, the *Architecture and Mechanism* in January, a dictionary of insanity terms (polyglot) thru the year, and probably will get out a book or two.

I have just now two insane murderers to defend. I should be willing to withdraw from the cases if I could get an autopsy. Matters financial have been picking up with me, but lately there has been a relapse; ups and downs.

In his letter of January, 1881, SPITZKA gives CLEVENGER the sort of advice that is needed by a Don Quixote:

Your letter pleased me very much. I am glad to see you adhering to a certain line of work. I have seen some of my ablest friends the victims of their versatility, and I rejoice when one of them sticks to one thing.

I would advise you to look on your scientific work as a relaxation, and not to lose sight of the practical money-making aspect of life. How are you to get books, instruments, specimens, alcohol and glass, unless you make the money for them? Your scientific work will not bring you in enough directly to keep you in beer, let alone to starve decently. But it will bring you actual financial gain indirectly. A physician with actual scientific backbone is found out any how, if he has a little *savoir faire*. That's your policy. Science for amusement, and to give you the consolation that you will advance human knowledge. Medicine to earn the dollars to enable you to prosecute Science. You see, a *circulus vitiosus*.

I sent you a card (of congratulations) in regard to your article in *Science*.

WILDER and I are in frequent correspondence. He proposes to submit his paper on cerebral nomenclature to me before putting it in print. He adopts my optic and postoptic lobe matter. My best work is yet coming, and I will keep you supplied with the respective papers.

In his letter of February eighth, SPITZKA continues his common-sense exhortations. Incidentally, he refers to CLEVINGER's gynecological friend, Dr DUDLEY, and to his neurological friends, Drs WILDER, JEWELL and BANNISTER:

Your welcome favor was received several days since. I cannot venture to give advice, but your plan of getting to the starvation point seems to me highly unpractical and unwise. What special profit it can possibly be to you to follow up abstract science for a year and put yourself in a position of inability to pursue it any further, I fail to perceive or comprehend. What earthly right you have to (using your own language) 'turn upon the masses and ask them what they can give me in return for what I have tried to do for posterity,' it is equally difficult to recognize. You might read some portions of THACKERAY relative to the disappointed aspirants for literary honors, with a good deal of enduring profit.

You say correctly that I have 'been thru the mill,' and I think I have been in exactly that state of mind in which I regret to find you agonizing at present—and thank my star that I am out of it, and unless you get out of it thru an exercise of deliberate judgment on your own part, you will be knocked out of it by the rough buffets of fortune.

You are enough of an experienced man of the world to know that the human race must be taken as it is—not as it should be. Suppose everybody who took up science were to say 'the world owes me a recompense a year from now,' and suppose the claim were admitted, it would be the most effectual bar to progress. Take your own work for example; so far as published, it contains very little of actual established fact, and a great deal of promised good work for the future. But until that promise is cancelled (and you cannot do that under *several* years) it is a mere promise, and the world owes you absolutely nothing for that.

Now this is very plain and very hard talk, but I have always been plainest and hardest with my friends. I never dissimulate or bandy polite phrases devoid of meaning, except with those I despise or dislike. What I say I think is the unanswerable truth, and I say it at the risk of misconstruction, because the danger in which you travail at present appears to me to require a loud warning.

As regards practice, you must do *exactly* as others do, or you may just as well cut your throat or take

in your shingle. Your first duty is to family, your next to science, your next to the world at large, and claims upon your time should be exactly in that order: first, Family; second, Science; third, World.

Dr McBRIDE has not yet tackled the subject, being engaged in collecting material—so I shall keep your letter till he shall be able to consider its propositions in the light of his own results. You want to get Prof. WILDER's papers on the pike's brain. I think you will be able to throttle a good deal said there and at the same time it will show the present state of knowledge on the subject. The most essential thing for you is FRITSCHÉ's work, which you will find mentioned in the literary references of my article or rather letter to you published in JEWELL's *Journal*.

There is no one else working up the fish's brain that I know of in this country from the same point of view as yourself. One of my pupils interested himself in the general aspects of the subject, but he has not gone into independent research. So far as I know the field is comparatively clear. Above all, hurry up a series of fine well-stained longitudinal and transverse microscopic sections of the great hoary *Lepidosteus*; you can get him from the Great Lakes and the Ohio. That is the keystone of the subject, and you will find much to publish about it in the way of provisional communication.

Dr E. C. DUDLEY called on me yesterday.

Give my respects to Drs JEWELL and BANNISTER if

you meet them, and don't take anything amiss from your friend.

SPITZKA's letter of May eighteenth, contains several interesting observations, including his epigram that versatility is the curse of genius:

After some silence I take advantage of a lull to write a little more at length on some points. I was reminded of you by every issue of *Science*, and had to reproach myself for not inserting your letter. I have done so today, sent it in with a few remarks of my own, and by the way pitched into CORE a little.

Some time ago I read over your papers. I do not wish to be complimentary, but they show that you have all the *separate* materials for an original investigator, which is saying a great deal nowadays. The great desideratum is that these separate materials be properly associated. You have suggestiveness enough for a dozen, and not facts enough for one: is that not the truth? If it is not so, pardon the liberty I have taken, but it had seemed so to me.

There is for example your theory of the cerebro-spinal system structure; it is full of ideas, any one of which would furnish work enough for a single investigator. What have you done to sustain your propositions? Have you made a single series of embryonic preparations, or studied the nerve centers of lower vertebrates, higher molluscs and arthropodes? If it is true that

DUVAL of Paris has confirmed your theory by actual observations, you have robbed American Science by permitting an outsider to stumble on what you had rationally anticipated years ago.

I write this in the spirit I know you will accept it in, or else I should leave it unsaid. I say it because I consider the game worth the candle, because I feel confident that a little advice will aid in securing good work from a talented source which would otherwise fritter away its time in generalities and that versatility which is the curse of genius, and because I believe—and if wrong will feel only too glad to be wrong—it is needed.

You may ask what you have done to provoke all this—nothing; the whole subject came to me in a manner altogether independently of any action remotely traceable to yourself. I got three splendid alligators alive, two of them four feet long, and I propose to have them worked up by one of my pupils under my direction, partly to use them experimentally myself. Looking at them and thinking what a mine of new facts lay concealed in the animals for an investigator possessing your qualifications, I was led to denounce the circumstances which kept you in Chicago and myself in New York. I am sure that it could be better utilized.

I have a very talented pupil, who is working up a different subject, of less biological import than those you ought to be engaged in. Another has done some work on the cortex, and his name will probably stick to the center which he saw at my office and diligently

worked up in the human brain. You could beat it all if you would, only I fear that you have been discouraged by some technical difficulties. Contradict me by letter.

Among SPITZKA's communications to CLEVENGER, we find pages five and six of a letter whose other parts have disappeared; the date is therefore lost, but we will insert the fragment here, as it deals with the topic discussed in the previous letter—SPITZKA's pupils. Each of the pupils mentioned rose to distinction. GRAEME HAMMOND we have already met; J. LEONARD CORNING is remembered as the discoverer of spinal anesthesia; and T. A. McBRIDE received the dedication of the first edition of SPITZKA's *Manual of Insanity*—‘as a mark of the author's personal esteem, and an humble tribute to his eminent services as a teacher and original investigator in the field of clinical medicine.’ In the second edition, the dedication was omitted by the publishers, without consulting the author. SPITZKA was considerably annoyed, and perhaps McBRIDE's vanity was wounded—but how little it really mattered! Within a short time, McBRIDE became a sick man, and thought of nothing except recovering his health: he undertook an ocean-

voyage, and died on the way, and was buried in the sea. SPITZKA wrote:

I have three very able pupils at work. Dr GRAEME HAMMOND (Dr W. A. HAMMOND's son), Dr McBRIDE, President of Neurological, and Dr J. L. CORNING. They are *pupils* in the old classical sense of the term, whom it is a relaxation to teach, and I have assigned work according to taste for all of them. HAMMOND found a new cortical center knocking (indecipherable). McBRIDE will take up the olivary bodies.

Possibly you may be able to come to New York when your specimens are ready, and review the subject here. Such isolated observations as you make, which are of individual interest, I would publish, if I were you, in *Science* with a figure or two to illustrate, as a provisional communication, or in JEWELL's *Journal*. Make it a rule to keep an electrotype of every cut for your systematic treatise.

At one time CLEVINGER was so misguided as to imagine he could endure life as a magazine hack. GEORGE GISSING's *New Grub Street* should be better known; in fact, an enlightened State should present a copy to all who are in danger of treading that thorofare. SPITZKA, in his letter of July eighteenth, tried to reason with his distracted friend:

I sincerely regret and sympathize with you concerning your discouragement. While I would say nothing to convince you against your bent and inclination for purely biological studies, yet I will take the liberty of offering for your consideration the following points into which you may look before leaping. 1st: In a few years you will have attained a good income—from what I hear of you, you can not fail to reach this desirable end. 2nd: Scientific work is poorly paid and not in equal and constant demand. 3rd: The work to which you propose to devote yourself involves much drudgery, petty quarrels, and leaves you but little time for original labor, less in fact than an engrossing practice would. Of course there is the advantage of seeing periodicals and being in constant communion with the general field of science.

I own that, egotistically, my preference would be to have you in New York. But I fear you overrate my ability to direct your labors. I am so much engrossed with practical duties this year, and will be more so prospectively, next year, that all I shall be able to do for my pupils will be in the line of suggestion. If I had men who would initiate themselves in technology and work industriously, I could give each of them a noble field to work up—I have given away two such fields already, which promise a rich crop—and would rather have one pupil like yourself than a dozen of the average kind to follow up these things.

I shall make an inquiry of the Editor of *Science* by

letter, as to whether he has a vacancy. I know that he paid a medical student during the winter, and believe the journal is a paying concern. Possibly you could get work on the *Nation*, and such like, but I fear it would be an awful grind! You could easily secure the correspondenceship of DUDLEY's paper, or some other western journal.

If I do not mistake your nature greatly, you have written your note under the effect of some mood, some disappointment, and you would regret to give up your present independence for the routine drag of a biologico-literary hack, on reflection.

If this is not the case, believe me I shall do all to further your desires in my power, and in this light shall let you know of the result of my inquiry with MICHELS.

Evidently CLEVINGER soon recovered from this aberration, for we hear no more of his desire to don the harness of a hack. It was now CLEVINGER's turn to render SPITZKA a service; some of the former's relatives were looking for a medico-legal expert, and CLEVINGER recommended SPITZKA. The New Yorker was anxious for an important case in the West, and in his letter of August fifteenth, in order to impress CLEVINGER's relations, he paraded his qualifications by naming the conspicuous cases in which he had

appeared—a remarkable series for a youth who had not yet reached his twenty-ninth birthday:

I am very glad that everything with your patient is well. Your psychological articles read very well; you may recollect an infantile game, where an object is concealed, and as the seeker gets farther away or nearer to it in his search, the cry is cold, very cold, or hot, very hot. Your first articles were somewhat of the frigid zone, but the recent ones, especially the last, are very hot, and there is a very happy thought concealed in those of the *Science* series.

I have been watching your progress with some solicitude during the past three weeks. You will admit that there was some occasion for it when you recollect that at first you were endeavoring to get a position as a scientific hack, then to start an opium home, and now to go into general practice.

I am much obliged to you for your kind recommendation. I am not conceited, but I should not for a moment admit ———'s name to be weighed in the balance with mine. If you wish to make an impression in my favor, refer your relative or her lawyers to my report in the *Radameier* case, in the 'St Louis Clinical Record,' (just out). Dr HAZARD will send them one if they wish it and mention your name. I shall have a copy sent you. I am ambitious to have some big medico-legal case out West, one that will pay for loss of practice in New York. I have already a degree of notoriety

there, and those things generally reflect back to New York.

If I have occasion to call, you may be sure that I shall stop in Chicago, to hunt up the not inconsiderable circle of friends I have there. You may perhaps mention that I have been an expert medical witness in three murder cases, *Porcello*, *Munzberg*, and *Bigot*, one abduction case, *Walker*, one damage suit, *Deputy-Hazard*, two parietic cases, *Martin* and *Gosling*, one cerebro-spinal sclerosis case of undue influence, *Higgins*, one case of neglect, *Cowley*, one malpractice suit, *Sayre*, and six will cases, *Murphy*, *Leslie*, *Dickie*, *Ross*, *Wallace* and *Riegelmann*, and seven minor cases. I have the largest expert practice in New York at present; of the fifteen big cases enumerated, the side which called me was successful in ten, the issue is not decided in three, and three were decided unfavorably: the *Gosling* case (grossly partisan), the *Frank Leslie* will case, and the *Ross* will case, both of which have been appealed.

Alas for CLEVENGER's recommendations, and alas for SPITZKA's qualifications. The relatives—rich in the world's goods, and richer still in ignorance—refused to have anything to do with SPITZKA, because they had heard he was a horse-doctor.

In his letter of September, 1883, SPITZKA

holds up to CLEVENGER the adage of the rolling stone:

Speaking of kicking the gluteal region, would it not be more advisable for you to abandon the kicking business altogether? You are kicking yourself worse than any one else, and it is a great pity. What warrant have you to change at one sweep the entire political complexion of Cook County? You have naught to do with this fight; make friends, keep your place, and accomplish something. You are able to, but not willing to do this—it seems to me. In my experience with mankind, I have had frequent occasion to observe persons of excellent parts who were always fretting about the little put-backs of life, and letting slip the great opportunity of presenting the unobtrusive, patient and promising labors of which they were capable. Such persons, agitated by alternate fits of industry and disaffection, rarely illustrated any other adage than that of the ‘rolling stone.’ Now suppose that you are turned out of the asylum—the worst that can happen—will you not have spent your time more profitably in collecting and arranging material for further study than in empty curses? One brain which I took out last summer is now worth to me more than all the polemical work I ever engaged in—unless I call my expert record a part of the polemical history of my life.

Now do not believe that I cannot appreciate your feelings and the unpleasant features of your position;

but the contrast between your expressions of a few months ago and of today is really ludicrous. You do not perhaps owe it to your profession, to science, nor even to your friends to do honor to your great if not last opportunity, but you owe it to yourself and your past.

Over thirty-five years have passed since the above letter was written, but in the current issues of the *Chicago Tribune* (December, 1918) we read that conditions are unchanged at Dunning: the same sort of brutal attendants, the same sort of brutal murders; again we hear of 'a dozen or more recent deaths by violence at the Dunning Insane Asylum.' HARRY VARNELL may be dead, but Varnellism survives in Cook County. Dr SHOBAL VAIL CLEVINGER's life-work has ended in—failure.

In his letter of November ninth, SPITZKA quotes another adage for CLEVINGER's benefit:

Do you expect to succeed without many failures? Could you not glean from my writings how few satisfactory findings reward our trouble in insanity?

Your suggestion to drop pathology after so enthusiastically going into it, reminds me of many of the other extreme acts of your career. You see things either too rosehued or too dark. One case of syphilitic

dementia, or parietic dementia far advanced, thoroly analysed, particularly in the basilar tract, would make your reputation. I sincerely trust that you will persevere. Lack of success is due to lack of skill, experience or knowledge, and the fault is usually with the worker, and not with his material. To give up is hence to argue one's incompetency. Rome was not built in a day, and it is absurd for you to expect within two months to accomplish results which our best minds of ripened experience, and with the best laboratories at their disposal, are still striving after.

SPITZKA's letter of March, 1884, discussing CLEVENGER's attempt to secure the superintendentship of the Pennsylvania Hospital for the Insane, re-introduces us to some of our old acquaintances:

I need not assure you that I will do anything in my power to aid you in accomplishing your purpose. It is indeed not only on your own account that I wish you to succeed, but also on mine, as I would rather have you near at hand than far distant.

Unfortunately I had a little dispute—in which I happened to be, as I admitted publicly, in the wrong—with members of the KIRKBRIDE family, so that it would do you no good if you were to parade my recommendation of you before that particular branch of the interests controlling the appointment you are seeking.

I think you will encounter many difficulties: the position is a high one, and there will be many competitors, while as I learned in the course of an unsuccessful application, Pennsylvanians do not care to have an appointment go to any other state.

Your proper course will be to learn exactly what persons to approach, thru COPE, and to send me the list. I shall then write special letters of recommendation to the more prominent: such as WEIR MITCHELL and PEPPER, who I flatter myself are quite willing to treat any recommendations I may give, thoughtfully.

COPE and the University are certainly strong backing, and if you secure the entire University influence, you can scarcely fail to accomplish your object. I agree with you, that you are not in the very best berth at present, tho you may recollect how anxious and ardent you were to secure it.

Should you succeed in your application, which I heartily wish, do not forget your old friends at Chicago, for nothing is more appreciated than thoughtfulness of old obligations and loyalty, and nothing disliked more than the dropping of persons after they have been utilized. I take the liberty of saying this, not because I think you could ever neglect the former, or do the latter wilfully, but because your mercurial spirit (your most malignant foe) might induce you to look only at the thing immediately in hand, to the neglect of retrospective regards.

P. S. The man you mentioned in your note is con-

sidered a fraud in Philadelphia, even by a man he dedicated a work to.

In his letter of July fifth, SPITZKA praises and admonishes his friend:

On reading over your paper again, in the more accessible shape of printed galleys, I must again take reason to express my appreciation of its deep thoughtfulness. It is exactly what our journal wanted, and what all such journals should have to vary the dull routine of case accounts and literature lists. I certainly read it with more pleasure than I am ordinarily in a position to express.

In addition, I reflected thus: What a pity that a man who can sit down and do this, is perpetually flying about the horizon without a fixed object. Why does he not stick to work which he is so well fitted to do, and in which he will accomplish, perhaps lasting fame, if he adheres to it?

I put three of your letters side by side: one, in which you are willing to barter body and soul to get an asylum position, followed by a second in which you are exuberant as to your prospects of work and results after getting it; the third is one in which you express yourself as impatient to leave it. I could not help thinking of RICHARD in DICKENS' *Bleak House*.

I trust you looked upon my refusal to put you in the ridiculous position you were bent on assuming before

the American Neurological Association with forgiveness. Read over what you wrote, and imagine how it would have been received, then burn it, and resolve to do no more of this fruitless reform business. You will regret one of these days every moment of your life which was wasted in controversy. Controversy, if indulged in too much, leads to an unhappy frame of mind, which does not always remain within the domain of mere unhappiness, but may and often does become pathological.

Let us soon have something in the line of your last communication, or anything else written in the same vein.

After 1884, we find no letters until 1890, when SPITZKA, as president of the American Neurological Association, urged CLEVINGER to attend the Philadelphia meeting and read a paper. But as there is no reference to a hiatus in the correspondence, we must suppose that it had continued, and that the letters were either destroyed, or were lost during CLEVINGER's frequent movings. The last letter in our possession is dated December twelfth, 1897.

As we write, there lies upon our desk the skull of a monkey which SPITZKA gave to CLEVINGER in the first year of their friendship. That friendship is now ended forever, but the brain-case of

that Cebus monkey still serves us as a paper-weight. SPITZKA never extracted CLEVINGER's brain, for he has preceded his elder friend to the grave. One after the other, CLEVINGER's colleagues became dwellers of the silent city. SPITZKA's son, the EDWARD ANTHONY of whom we have already spoken, fell heir to the American Anthropometric Society: he examined and described the brains of many of the notables who have figured in these pages—E. D. COPE, HARRISON ALLEN, E. C. SEGUIN, WILLIAM PEPPER and JOSEPH LEIDY. In the hands of SPITZKA's son have lain the makers of American Science.

CHAPTER X

THE CLOSING YEARS

AS the years swept on, taking strength and friends from CLEVINGER, he retired from the turmoil of Chicago to the placidity of Park Ridge—a town about fifteen miles from the whirlpool where he had lived so long. But cruelty invades the village as readily as the clamorous city. The CLEVINGERS had only to look out of their window to see that final proof of man's brutality—an ill-treated orphan. She had already reached maturity, but as the harsh attitude of her foster-parents continued, the CLEVINGERS invited her to share their cottage. In the autumn of 1910, gastric carcinoma wrote the death-certificate of Mrs CLEVINGER—after forty-six years of wedded life. A problem now confronted the old doctor and his young ward, but they solved it by marrying each other—thus anticipating the venerable JOHN ALLAN WYETH and the charming Miss CHALIFOUX.

The marriage-institution is man's most dangerous invention. It wrecks more lives than alcohol and war. Many men, like EDMUND WIDOWSON in GISSING'S *The Odd Women*, wait thru half a life-time for marriage—and then marry unhappily. The shrewdest cannot avoid its pitfalls. Individuals, artful and astute, who can meet their fellows successfully on the battle-fields of finance, are often unhorsed in their first skirmish with matrimony. Yet CLEVINGER, the most unsophisticated of men, twice entered the marriage-market with the utmost felicity. The wife of his youth and the wife of his age have been to him an unalloyed blessing. The first Mrs CLEVINGER we never met, but we can testify that nothing could be more touching than the tender devotion with which the second Mrs CLEVINGER guards her old hero. If she is to him only a child, she is also his wife and mother. CLEVINGER is a man of many failures, but his married career—beginning in his twenty-first year and extending up to the present—has been eminently successful.

CLEVINGER'S numerous set-backs could not prevent him from planning anew, as soon as he was settled in Park Ridge—he was not the sort of man who could content himself by raising a

garden. He soon started the Park Ridge Vocation School—and the prospectus was alluring. The curriculum of the first year included the essentials of typography, telegraphy, surveying, machinery and agriculture. The projector wrote:

The Illinois Legislature refused to make any provision for public vocation schools, so it remains for individuals to promote this good work until woman suffrage can direct public funds toward the welfare of the people, instead of in playing politics.

My school regards teaching as of more importance than buildings, and gradually I am finding superb material in the boys of Park Ridge. The readiness with which young folks 'pick up' knowledge of practical things, such as wireless telegraphy and mechanism, shows that learning can be made pleasant. Higher mathematics, even, may be taught indirectly when applied usefully, as in triangulating across streams in surveying. Some rudiments of chemistry may be taught young children by attractive demonstrations.

The listlessness of task-tired boys in higher school-grades changes to enthusiasm in the Vocation School. While the average school is attended reluctantly, the trade-learning rooms hold eager, alert, interested workers, who come early to stay long after usual closing time. Only while fresh and interested are my little fellows allowed to work. Everything is voluntary, and

my experience is that they never require urging. By self-elimination, those unsuited drop out, but some of them come back after the play-spasm is over. The older students take pride in teaching the younger, and soon realize they are headed in the right direction for usefulness to themselves, their families and the community.

Pupils considered dull or incapable have brightened into attentive, retentive students under the Vocation System. Snobbery, so rampant in the higher grades of our common schools, is wholly suppressed, and the 'dignity of labor' becomes more than a mere phrase.

My hope is to gradually gather a force of instructed boys who will carry on the good work when I shall have passed away. Some machinery-patents I desire to put in charge of these graduates, to manufacture for the benefit of the school 'not built with hands,' but with brains.

Instruction first, materials afterward. And it is history that good results in teaching are often secured with crude instruments.

CLEVENGER did not exaggerate the crudeness of his instruments. He located an old press, and with poor type, bad ink, and a raw lad or two, he proceeded to print some circulars, called *Dr Clevenger's Comments*, which were indeed terrible to behold. All who received them must have felt like mildly rebuking their instigator,

as did ROSWELL PARK, whose last letter, written shortly before his lamented death—another friend gone!—was as follows:

It is a long time since I have seen you, and longer than that has elapsed since hearing from you. I have often read, and taken pleasure in referring medical jurists, and others, to your books, especially that on 'litigation spine.'

But I don't know what to make of this badly printed, badly worded, to me, rather unintelligible circular. Is it an invitation to subscribe, or what to do, and with what object? I don't want to waste your time, but if it be worth while, give me some clearer notion of what is 'up' or wanted.

We need say nothing further about the Park Ridge Vocation School except that it caused its founder a few heart-aches, and then went the way of his School of Biology.

CLEVENGER was not happy at Park Ridge. He had reached an age when he loved to be autobiographical. Nothing would have pleased him better than to lean back in the rocking-chair on his porch, and talk to some sympathetic visitor of the days when he browsed in JEWELL's library, and investigated cerebral pathology, and appeared for the defense in the case of the *State of Wisconsin versus Emma Herman*, and was

banqueted by the Sheboygan County Medical Society, and helped organize the Chicago Academy of Medicine, and lectured under LEIDY's chairmanship at the Philadelphia Academy of Natural Sciences, and dined and argued with COPE, and worked and loafed with SPITZKA.

But no eager disciples came on a pilgrimage to the Sage of Park Ridge. Nor did the natives evince any desire to listen to CLEVINGER's recollections. They were interested in money, not in reminiscences. They served no other god but wealth, and since Dr CLEVINGER lived in a wooden cottage, while the homeopathic physician possessed a stone house, they naturally inferred that the latter was the better doctor.

The key-note of Park Ridge is artificiality. Every tree is clipped, every hedge is trimmed—and so are the inhabitants. No birds seem to nest there, and at night we found it difficult to sleep because we missed the pleasant chirp of the cricket and the song of the tree-frogs. Yet CLEVINGER enjoyed a certain celebrity among Park Ridgians, but this was due neither to the researches he had conducted nor the books he had written, but on account of his relationship to music. Altho he himself knew little of quadruple counterpoint, he was known thruout Park

Ridge as the father of MARTHA CLEVINGER KIMMIT, the musical leader of the town. To bask in the light of a daughter's accomplishments is one of life's supreme joys, but Park Ridge could not hold CLEVINGER's gifted child; she went West to spread melody thruout Wisconsin—the State in which her father, years before, as a medico-legal expert, effected justice for a less fortunate woman.

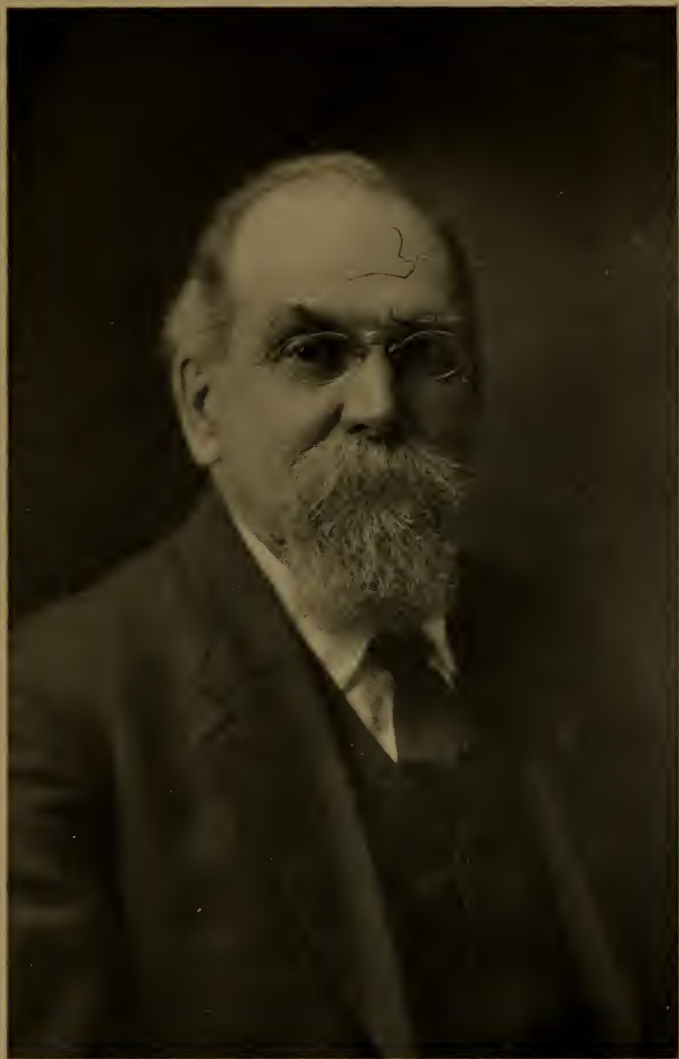
So CLEVINGER waited in Park Ridge, watching himself sink into obscurity. In his prime, he had his column in such publications as *Appleton's Cyclopedia of American Biography*, *White's Cyclopedia of National Biography*, and *Stone's Biography of Eminent American Physicians and Surgeons*, but now he found himself excluded from even the all-embracing *Who's Who*. Only at rare intervals he received a cheering word, reminding him of the time when he amounted to something: a cordial letter from the anatomist ALBERT CHAUNCEY EYCLESHYMER, the dean of the medical school of the University of Illinois, asking him to come to lunch for a chat about the old times, or a note from SMITH ELY JELLIFFE, the present proprietor of the *Journal of Nervous and Mental Disease*, generously referring to him as 'one of the

founders of the journal.' But as a rule his box in the post-office was empty, and his visitor's chair unoccupied.

At times CLEVENGER looked thru the letters he had received from famous colleagues, and was on the point of burning them. None of his children had followed scientific pursuits, and when he himself stepped down from life's stage, who would treasure these letters from HARRISON ALLEN and COPE and SPITZKA? Certainly no one in Park Ridge. Better burn them in sorrow and reverence than have them thrown away by an indifferent hand. He took them to the fire—then turned back and carefully put them away again.

He had been a sociable man, a mixer with his fellows. But he could no longer attend meetings, and as his earning capacity was at an end, he could not even subscribe for the medical and scientific periodicals which he desired. His meagre pension, supplemented by his wife's resourcefulness, sufficed to save him from bodily hunger, but he suffered acutely from intellectual starvation. He must find some one to talk to—and finally decided to return to Chicago.

So he came back to the teeming city, hoping for companionship and activity. He sent out



Yours sincerely, S. V. Clevenger.

cards, announcing his readiness to receive patients in his specialty, but other neurologists now occupied the field, and no one came to Dr CLEVENGER; besides, he had no office, perhaps not even a percussion-hammer. In Chicago, CLEVENGER learnt the old story that a man may be as lonely in a metropolis as in a village. Every day people came to 4321 St Lawrence Avenue—but they knocked at other doors than CLEVENGER'S.

One summer, CLEVENGER thought of going to Quincy. The state's Old Soldiers' Home is there, and he might meet some of his old comrades, and above all, B. F. UNDERWOOD was living in Quincy, editing a newspaper.

When all the world is old, lad,
And all the trees are brown;
And all the sport is stale, lad,
And all the wheels run down;
Creep home and take your place there,
The spent and maimed among;
God grant you find one face there
You loved when all was young.

So CLEVENGER wrote to Friend UNDERWOOD:

In considering the possibility of my wife and I coming to Quincy to live, an exceedingly pleasant contin-

gency was in meeting you again and renewing our scientific discussions of the times of General TRUMBULL, Prof. COPE, Dr MONTGOMERY, et id.—tho physically, I presume that neither of us are the sprightly kids we were in those days of the ‘Open Court.’

Since the publication of my *Evolution*, which I think you reviewed, I got out some medical books and one entitled *Fun in a Doctor's Life*, a copy of which I ordered sent to you.

You seem to have liked Quincy and been appreciated there, and if I do come we can have many a chat over past times of both of us, and I know that you have added to your lecturing and writing career there.

I have only general information of your town, and its soldier home, in the hospital of which I thought of seeking an appointment.

If not too much trespassing on your time, please tell me something of the cottages on the home grounds; are they for one family or more each? and any other information an old soldier might like to know. Is the administration humane?

My wife thinks that it would be better for me to go down there and see for myself. She is quite timid about the projected move, but there are crises in life when decision is necessary. . . .

I hope to hear from you and see you soon.

But Friend UNDERWOOD never answered CLEVENGER's letter; it was returned to its sender

unopened, and across the envelope was written the word—Deceased.

Occasionally, CLEVENGER hunted up some of his acquaintances. During the Christmas season of 1913, he visited his friend WILLIAM AUGUSTUS EVANS, who as health commissioner of Chicago, as professor of sanitary science in the medical school of Northwestern University, and as health editor of the *Chicago Tribune*, has become one of the best-known of American hygienists. The preceding February, Dr EVANS had taken a trip to Denver, and on the way he read *Pathfinders in Medicine*. He asked CLEVENGER if he ever heard of this book, and CLEVENGER said that he had not. Thereupon, Dr EVANS loaned his copy to CLEVENGER, who took it home with him. CLEVENGER began to read the volume that night, and for the first time stumbled across the story of SEMMELWEIS. It affected him strangely, for in the fate of this physician he read an epitome of his own thwarted career. Unable to sleep, he read the tale over and over again, alternately swearing and crying. As SEMMELWEIS had been driven from the Vienna hospital, so he too had been cast out, by the powers of darkness, from the hospitals of Dunning and Kankakee. Across the gulfs of time and space,

CLEVENGER touched hands with SEMMELWEIS. CLEVENGER was seventy years of age, but it was not until now, amid indignation and tears, that he found his hero ideal. From that time on, his conversation and correspondence were tintured with SEMMELWEIS. CLEVENGER wrote to the SEMMELWEIS essayist—and thus found his own biographer. When his initial letter arrived, however, we knew nothing about CLEVENGER, except that we had come across *Clevenger's fissure* in the oddest of places—in the chapter on *Anatomical Proper Names and their Origin*, in CROTHERS and BICE's *Elements of Latin*.

Our friendship with CLEVENGER began on the day that he learnt of the death of his life-long friend, SPITZKA. In his letter of January fifteenth, 1914, replying to our note of acknowledgment, CLEVENGER wrote:

Your . . . letter came to me today, just as I was grieving over the announced death of my old time friend and fellow student in cerebral anatomy and psychiatry, Dr E. C. SPITZKA of New York. He had an immense grasp of those subjects, and we wrote for the *Journal of Nervous and Mental Disease* during the '80's as well as other scientific and medical journals, many articles costing us much time, thought and work.

Of late years we have not seen or corresponded with

each other, but when I read of his death by apoplexy there came the painful cramp at my heart as when during the civil war I looked upon a favorite comrade shot down. It seems as tho our very enjoyments, such as in friendship, were made the means by Nature to increase our sufferings.

Let us quote a passage from another letter, containing one of his numerous references to his newly-found but much-beloved SEMMELWEIS:

Here and there if I can find some bright spots in this gruesome story of mine, I shall rejoice in the telling, but sneak-thief officials, roystering drunken all-night revels of the worst of Chicago slum-dwellers at the asylum, and the finding out of trusted confidential friends as treacherous, predominate. Full of enthusiasm, I would instruct ministers and prominent merchants in the atrocities, only to find sermons filled with meaningless platitudes, and that the merchants were in with the grafters and with great amusement disclosed to them my 'fool reform' plans. And I wondered that I was always butting stone walls!

Lord, Lord, if I had only known as much as I do now, but none of us can be invincible. I did my best and accomplished little. Animosities originating at that period survive among the unscrupulous and those influenced by them. But poor SEMMELWEIS had a similar dose, and must have been astonished as I was at

the bitter injustice of it all. It's the interfering with vested interests that the world does not forgive.

When we first met Dr CLEVENGER, in the spring of 1914, we saw a well-preserved, pleasant-featured septuagenarian. He proved a delightful raconteur, and tho he sometimes repeated his stories, he invariably told them well. He walked with a springy step, his eyes were bright and twinkling, and his appearance gave evidence, that in spite of the buffets of the world, some one was taking care of him. In the autumn of 1916, after an absence of several months, we again saw CLEVENGER; mentally he was still alert, but the inroads of age were visible upon him. Upon this occasion we found a new member in the CLEVENGER household: Tweety, the sparrow. In its infancy, it had fallen from its nest directly beneath the CLEVENGER windows, and Mrs CLEVENGER raised it with much love and many hemp-seeds. Tweety was not kept in a cage, and entirely devoid of fear, it amused itself thruout the evening by flying from one to the other, looking into Mrs CLEVENGER's eyes, pecking at the Doctor's beard, nestling underneath our jacket. In its affection and guileless innocence, it symbolised the pure-hearted people in whose home it was chirping and fly-

ing. We like to retain this picture of our dear old Don Quixote, resting peacefully in his comfortable chair, surrounded by his good wife and tame bird.

Upon reaching his seventy-fifth birthday, in the spring of 1918, the veteran's pension was increased, and the CLEVENGERS moved from the south side to better quarters at 2639 George Street, where they live at present.

During CLEVENGER's span of years, neurology and psychiatry made more progress than in all previous periods. These twin sciences grew up in the nineteenth century, and took strides only in the latter half. They are new territory for the scientist, replete with unexplored regions. ERNESTO LUGARO's *Modern Problems in Psychiatry* refers to several, but there are myriads of others. CLEVENGER would have solved some of these riddles if he had worked over them long enough, but he was a truant child of neurology, wandering away and getting lost in other fields, when she was about to whisper him her choicest secrets. Had he been able to follow SPITZKA's advice, his achievements in psychiatry would have been greater—but then he would not have been its Don Quixote.

Since no method has yet been devised by which

to measure the relative greatness of men, it is unprofitable to discuss whether our country has produced neurologists who equal the French DUCHENNE, CHARCOT, or MARIE; or the German ROMBERG, FRIEDREICH, or ERB; or the English GOWERS, HUGHLINGS JACKSON, or HORSLEY. But this much is indisputable: the labors of American neurologists have materially advanced our knowledge of the science.

Leaving aside the earlier workers, such as BENJAMIN RUSH, ISAAC RAY, JAMES JACKSON, and JOHN KEARSLEY MITCHELL, we may mention some of the American achievements in this department during the past fifty years: in 1869, GEORGE MILLER BEARD described nervous exhaustion; in 1872, GEORGE HUNTINGTON described hereditary chorea; in 1873, HAMMOND described athetosis, and SEGUIN investigated spastic paraplegia; in 1876, THOMAS G. MORTON described metatarsalgia; in 1878, WEIR MITCHELL described red neuralgia; in 1884, MOSES ALLEN STARR showed that small lesions in the lemniscus cause loss of muscular sense in the limbs of the opposite side; in 1885, SPITZKA described the marginal tract of the spinal cord, and SARAH J. MCNUTT showed that the paralyzes of infants were usually due to hemorrhage

within the cranium; in 1887, CHARLES L. DANA investigated the localisation of referred pains, demonstrating the areas of pain of sympathetic origin; in 1890, WILLIAM F. MILROY described persistent hereditary edema of the legs; in 1900, CHARLES KARSNER MILLS described unilateral progressive ascending paralysis; in 1904, HENRY HUN increased our information concerning myasthenia gravis; in 1907, RAMSAY HUNT described herpetic inflammation of the geniculate ganglia, and ROSS GRANVILLE HARRISON devised a method for directly observing the living and growing nerve; in 1912, FREDERICK TILNEY shed light on the histology of the hypophysis cerebri. BURT G. WILDER's discoveries in cerebral anatomy, J. J. PUTNAM's various investigations, A. A. BRILL's popularization of Freudism, WILLIAM A. WHITE's and SMITH ELY JELLIFFE's editorial labors, FLEXNER's and NOGUCHI's experimentation in neuro-pathology, and HARVEY CUSHING's neuro-surgical work, are contributions of importance.

What position does CLEVENGER occupy in this list? Not as high a place as some of the others, and whoever looks thru the four official volumes of the *Institutional Care of the Insane in the United States and Canada*, will find only inci-

dental mention of his connexion with Dunning and Kankakee. But the calm and detached tones in which these stately volumes talk of institutional management, carefully avoiding any reference to political corruption, do not represent the truth of the situation. History cannot always be written without indignation. And it is because SHOBAL VAIL CLEVINGER has aroused our indignation at atrocities, continued until this very day against the most helpless of human beings, that we have passed weightier names by, and have written instead this story of Chicago's shame, thus contributing to medical history a type which we shall ever cherish—the Don Quixote of Psychiatry.

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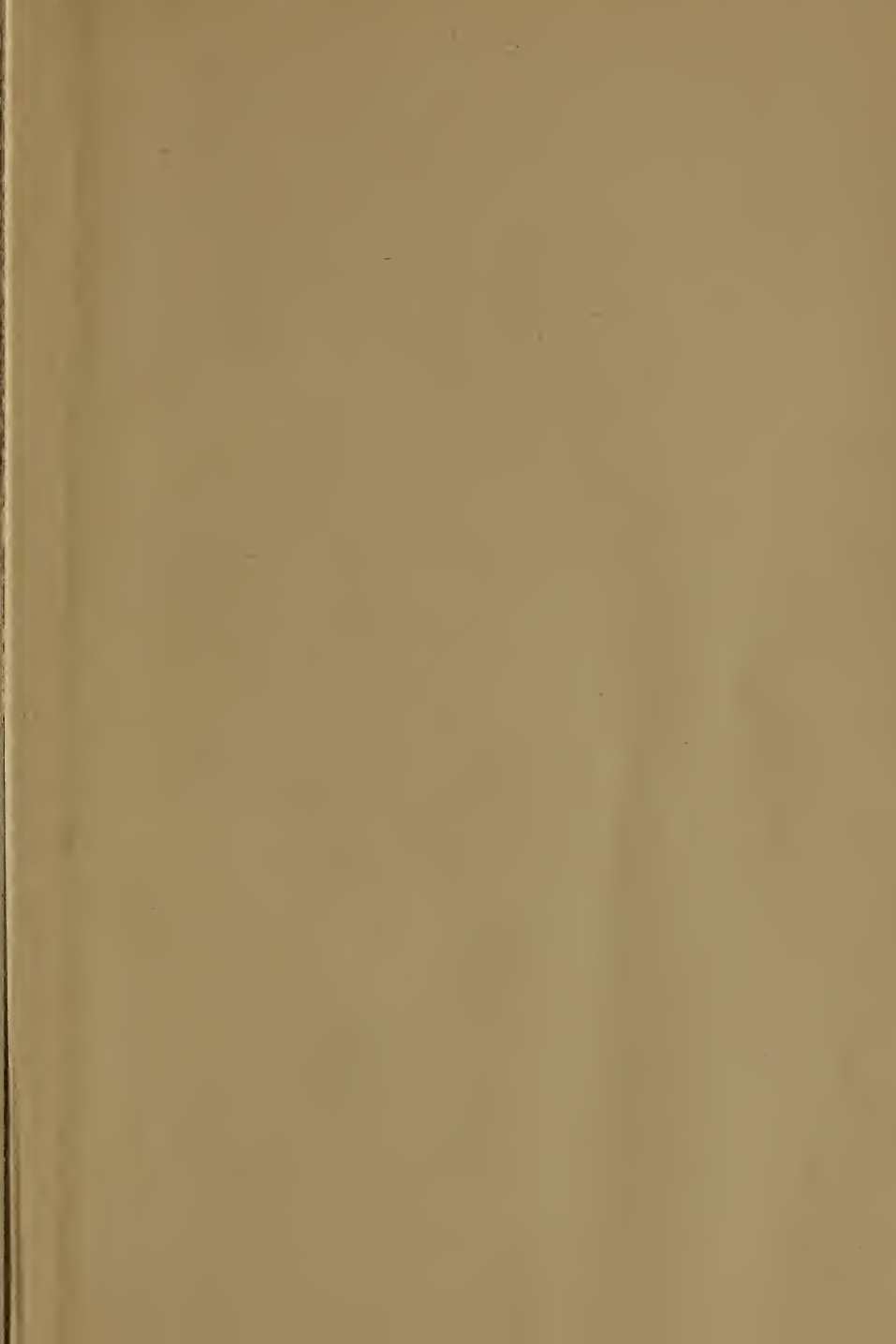
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